

To be of real use the nurse should make herself familiar with all sections so she can use it as a true reference book.

B.F.C.

Textbook of Physiology by W. W. Tuttle, Ph.D., Sc.D. and B.A. Schottelius, Ph.D. 547 pp. 14th edition. Mosby. 52s. 6d.

Like so many American textbooks the presentation is excellent. The paper is expensive, the double column print is large, clear and quick to read, the diagrams and pictures helpful and the layout of chapters, headings and sub-headings sensible and useful for reference purposes. So many English medical books, although better written and spelt are left standing in matters of first impressions. In textbooks these first impressions are important, since the well balanced student is more likely to visit the theatre than stay at home to read his physiology in forbidding close print unrelieved by pretty pictures for several pages at a time. His reading must be easy.

The continuity and background writing in this book make for interesting reading. The book is clear and easy to read, although this is not to say that the writing is good, for it is sometimes stilted, and a few of the American-type visual training aids are a trifle tiresome. Chapters on metabolism and nutrition are quite as good as similar sections in Biochemistry textbooks and better expressed. Each chapter leads the reader into its subject from basic principles, and especially useful are those on muscle and nerve physiology, circulation and respiration. The account of renal secretion is a

little thin, saying nothing of GFR and RPF and how they are measured.

Establishment textbook traditions die hard and anyone would hesitate to suggest that this book should replace the standard physiological textbook at Charterhouse, especially since it is a pound more expensive. However it is the much better book. S.C.S.

The Penguin Handbook of First Aid by A. C. White Knox and J. E. F. Gueritz. Price 3s. 6d.

This Penguin written by two eminent and knowledgeable members of the St. John Ambulance Brigade is a small, sensible manual for the lay public. It is well written and clear, keeping instruction to the minimum, but avoiding nothing that is essential.

The chapter on accidents and how they can be prevented holds something for everyone and puts forward the necessity for knowledge where prevention is impossible. Bodily functions are explained simply, basic care in recognition and treatment of shock and haemorrhage is clear, but enough stress is not laid on the early calling of Medical Aid.

Practical advice on unusual conditions are welcome, for example jelly fish stings, farm injuries and adder bites. Simple methods of transport and the importance of the individual in Civil Defence end this little book. It seems excellent for the lay public, but the medical student and nurse would be wiser to consult a more comprehensive standard book.

R.E.B.

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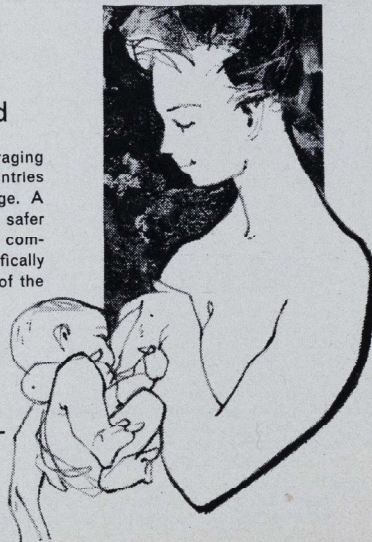
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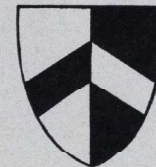
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Editorial

MANY STUDENTS WHEN they start their clinical must be mildly scandalised by the apparent offhandedness with which patients are treated on occasions. As the ponderous diagnostic machine of the hospital lumbers into action symptomatic treatment is so often waived. Time is at a premium and explanations of the rationale behind diagnosis and treatment tends to be cursory. In the Foreword of a recent book by Anne McGhee from the Nursing Studies Unit at Edinburgh* Professor Brotherton, the professor of Public Health and Social Medicine at Edinburgh University writes: "When we come fresh to work in hospitals for the first time we are all disturbed by some of the things we find there, but our prolonged apprenticeship as nurses or doctors conditions us to the peculiarities of the hospital world. We gain experience but we lose some of our sensitivity. We are apt to forget what a bewildering and sometimes frightening place the hospital can be for our patients."

There is a natural tendency to be suspicious of any attempt at objectivity of something in which temperament, emotional liability and

sensitivity play a great part. However, Mrs. McGhee has contrived to produce a business-like and analytical report on the reactions of nearly 500 patients to varying periods of confinement in an Edinburgh Teaching Hospital. All the patients were interviewed both in the wards and again afterwards when they were at home. This could only be achieved by contact and co-operation with the nursing staff. The study is divided into a number of sections which include the patients' reactions to Nursing Care, Medical Care, Structure and Equipment, Amenities, etc. The terms of reference of the report are necessarily limited but this was only intended as a pilot study preliminary to a more comprehensive undertaking yet to be achieved. Nevertheless, it would make illuminating bedside reading to many members of both the medical and nursing professions. The sad truth is that those most likely to benefit are the least likely to read it.

**The Patient's Attitude to Nursing Care—Anne McGhee.* E. & S. Livingstone, Ltd. 10s. 6d.

Births

COOKE.—On August 15th, to Jean (née Gallagher), wife of T. D. V. Cooke, a son (Michael Alan Vernon), a brother for Justyna Louise.

GIRI.—On August 16th, to Karin (née Lewenhaupt) and Surgeon-Lieut.-Cdr. G. Giri, a daughter (Alexandra), a sister for Michael and Christopher.

POPE.—On August 7th, to Ruth, wife of Fergus Pope, a son (Daniel Otto).

Engagements

ADNITT—BOOL.—The engagement is announced between Peter Ian Adnitt and Jennifer Bool.
BIRKETT—PRINCE.—The engagement is announced between David Anthony Birkett and Stephanie Veronica Prince.

Deaths

SPICER. On August 13th, Surgeon-Commander Harry Spicer, R.N. (Retd.). Qualified 1894.

Fifty years ago

DR. JAMES MAXWELL of Formosa published an article advocating the lateral perineal approach in operating for a Vesical Calculus, in preference to the suprapubic one.

In these days of more time-consuming surgery, his description of it as "the quickest important operation in surgery", is of considerable interest. Under normal conditions it should take no longer than three minutes; two usually being sufficient.

The procedure amounted to passing a grooved urethral staff and making some well defined stabs into the perineum with a scalpel; using the staff as a guide. When the bladder was opened, the stone was quickly removed and a drain and packing left in the wound. The patient's stay in hospital was usually a fortnight.

The most important asset was that perfect dependent drainage was obtained, whereas the drainage in the suprapubic operation was less satisfactory.

In one year, he performed thirty of these operations and his friend Dr. Swan of Canton, sixty-five, without any deaths. Too small children and too large stones were his only contraindications for this procedure.

He finishes by saying: "The whole opera-

Marriages

DAVID ENDLE EVANS—PAULINE MURIEL BICKERSTAFF. The marriage took place in Nakuru, Kenya, in June, 1961.

CEDRIC PRYS ROBERTS—LINDA JOYCE BICKERSTAFF. The marriage took place at St. Mary-le-Tower Church, Ipswich, Suffolk, on 15th July, 1961.

Appointment

Royal College of Physicians

Professor E. F. Scowen has been elected a censor for the ensuing year.

M.R.C.P.: C. F. Allenby; J. D. Parkes; J. T. Silverstone; J. E. Stark.

Change of Address

Dr. Alfred White Franklin has changed his professional address to 149, Harley Street, London, W.1.

Mr. R. H. C. Robins, 7, Strangways Terrace, Truro, Cornwall.

tion is extraordinarily simple and we beg our readers to try it for themselves."

The Editorial comment on this article, after thanking the contributor, was: "We doubt if the lateral operation for stone is now performed in this hospital."

Calendar

SEPTEMBER

Sat. 16—On Duty: Dr. G. W. Hayward
Mr. A. W. Badenoch
Mr. R. W. Ballantine

Sat. 23—On Duty: Dr. A. W. Spence
Mr. E. G. Tuckwell
Mr. T. B. Boulton

Sat. 30—On Duty: Medical and Surgical
Units
Mr. G. H. Ellis

OCTOBER

Sat. 7—On Duty: Dr. R. Bodley Scott
Mr. A. H. Hunt
Mr. F. T. Evans

Sat. 14—On Duty: Dr. E. R. Cullinan
Mr. C. Naughton
Morgan
Mr. R. A. Bowen

BART'S IN HERTS

FOR NEARLY 22 years many Bart's patients have been accommodated at Hill End Hospital, on the outskirts of St. Albans. During the 1939-45 war the number of patients rose on occasion to 800, but, when peace was restored, the number slowly declined as the general medical and surgical firms returned in gradual stages to the Hospital in the City, leaving the Orthopaedic, E.N.T., Ophthalmic, Neurosurgical and Thoracic Surgical Units to carry on with a mere 200 patients. In April this year these special units returned to London and so the final curtain fell on "Bart's in Herts." "Throats," "Eyes," "Heads" and "Chests" have been provided with a fine new home in the Queen Elizabeth II Block and the Orthopaedic patients are now on the first two floors of the West Wing which has been reconditioned to receive them.

Now that we are all back in London it would seem appropriate to review briefly the history of the invasion and partial occupation of Hill End by St. Bartholomew's Hospital. In the summer of 1939, when war seemed inevitable, plans were issued by the Government making provision for the care of air-raid casualties and for the continuation of the treatment of the sick in the event of hostilities. These plans constituted the Emergency Medical Service (E.M.S.). E.M.S. hospitals were basically Civil hospitals but they were also used for large numbers of Service patients, particularly those requiring treatment in specialized units and also when the demands for hospital care suddenly increased. London was divided into five sectors with one or more teaching hospitals at the apex of each sector. These central hospitals were instructed to deal with emergencies due either to acute illness or to injury including those consequent on enemy action. Thus the function of the teaching hospital was expected to be that of a Casualty Clearing Station in the 1914-18 war. The teaching hospital and all the other hospitals in the defined segment were under the direction of a "Sector Officer" chosen from the staff of the teaching hospital at the apex of that sector. In the case of the Bart's Sector this direction was undertaken, with much-envied success, by the late Sir Girling Ball. At the

periphery of each sector a large hospital, usually a hospital for mental diseases, was taken over by the Government for conversion to fulfil the functions of a Base Hospital. In some of the Base Hospitals additional surgical units were organised to deal with injuries and diseases considered to require specialized treatment. Hill End Hospital was the Base Hospital of the Bart's Sector and new units for the surgical care of patients with head and chest diseases were established. The orthopaedic department was greatly enlarged and a big plastic unit was established under the direction of Mr. Rainsford Mowlem of the Middlesex Hospital. This was because the plastic surgeons from St. Bartholomew's Hospital had been ordered to other sectors.

Before the declaration of war the in-patients at Bart's were reduced as far as possible by sending home all those who in a spirit of optimism might be considered convalescent. Then, while chief assistants, housemen and students clad in singlets and shorts—or just shorts—worked furiously filling bags with sand to protect the Alma Mater, a fleet of Green Line buses, converted to serve as massive ambulances, carried the remaining patients to more peripheral hospitals in the sector. The largest number were taken to Hill End, although many went to Friern Hospital ("Colney Hatch") and some, including the children, were taken to Hill End's neighbouring hospital—Cell Barnes. The E.M.S. patients and staff at Hill End and Cell Barnes enjoyed the great advantage of having the services of Bart's nurses.

The conversion of a pre-war mental institution to the requirements of a general hospital catering predominantly for surgical cases is a Herculean task. The direction of the hospital remained in the hands of the Superintendent and it fell on the broad shoulders of Sir James Paterson Ross and Professor Ronald Christie to work through the Superintendent to obtain the changes necessary for this conversion. All "Hill-Enders" are indeed deeply indebted to the two professors for the success they achieved in this major undertaking beset with incredibly petty irritations. A few may remember the occa-

sion on which the Professor of Surgery was called urgently from the operating theatre to be informed that a Bart's nurse had been seen walking on the new-mown grass, for which immediate disciplinary action was demanded! The Nursing Staff were faced by an almost impossible job, for large numbers of casualties were expected to follow the outbreak of war and the wards had to be prepared to receive them. Now the standard of hygiene in a pre-war mental hospital which catered for many chronic cases has to be seen and smelt to be appreciated and it needs little imagination to picture the reaction of a Surgical Ward Sister from St. Bartholomew's Hospital who faces this for the first time. In addition, there were, of course, no facilities for nursing surgical cases and the battle to get the necessary equipment such as gas rings and fish kettles for the sterilisation of instruments had to be fought with great persistence, but the Nursing Staff attacked these problems with untiring determination. "Difficult problems were done today and the impossible took a day or two."

The only established operating facilities consisted of one very small theatre which was obviously absurdly inadequate for 800 predominantly surgical patients. Fortunately there was a very large barber's saloon with the customary plumbing facilities and this, and other adjacent rooms, were transformed into three operating theatres together with the necessary sterilising and anaesthetic rooms. An additional separate theatre was provided for the Plastic Unit. The large mirrors on the wall required for the use of the barber's customers were retained throughout the war like an emblem of the Briton's confidence that the war would be won and Hill End Hospital return to its pre-war function. This conversion of a barber's saloon into operating theatres was carried out under the direction of Mr. Mercer, the Chief Engineer at the Hospital, and we all owe him and his plumbing and electrical colleagues an immense debt. The theatre staff and surgical teams of the early years of the war must all remember the constant willingness of Mr. Newcater, the plumber, affectionately known as "Snow White", a nickname earned from his appearance in the theatre in a white gown with a theatre cap worn transversely—in fact there must be many who only knew him by his nickname. Electrical problems were attended to with equal alacrity by Messrs. Webb and

Bainton, who were constantly replacing fuses which blew like pop-corn as a result of the overstrain on the circuits due to the use of a multiplicity of two-way plugs. (The use of heating units on light circuits by the Nursing Staff was also mentioned as a contributing factor!) This remarkably willing co-operation of the lay staff of Hill End Hospital was an outstanding feature of the 21 years of "Bart's in Herts.": it prevented so many frustrations that it proved a dominant factor in building up an exceptionally happy atmosphere which pervaded the whole hospital.

But the autumn of 1939 was far from being a happy time at Hill End; there was so much scrubbing and organising and too little medical work, for this was the period of the "Phoney War". The trials of the Nursing Staff were made no lighter by their inadequate feeding and poor accommodation. The reception of casualties from hypothetical air-raids was practised and large numbers of volunteers from the City of St. Albans were carried on stretchers into the Recreation Hall with labels describing their injuries. The surgeon on duty directed their distribution to the various wards, including a resuscitation ward, to which the "injured" were duly carried and then walked home. The smooth running of these practices and, later, of real convoys of sick and wounded patients depended greatly on the quick and accurate transfer of the patients to their destinations and this responsibility was willingly accepted by the Bart's students. There was no shortage of students for much of the clinical teaching, including the preliminary course, a major part of the medical and surgical ward work, and instruction in pathology, was transferred to Hill End at the outbreak of war. The student's life was not an easy one: he obtained lodgings in the city of St. Albans through the billeting officer, acted as dresser or clerk to the patients in the hospital, "porter" the patients, joined fire-fighting and rescue squads, took part in the "Home-Guard" and waged war with the Medical Superintendent who was considered too dictatorial. There must have been few moments for study. But Hill End had its compensations for there were several tennis courts and a large cricket pitch (used for rugger in the winter) within the grounds and a swimming pool (The "Water Splash") about a mile away. Even the Home Guard had its compensations: what could be more

fun than to tell a consultant to "Halt or I shoot" which certainly happened on more than one occasion. Evidence that the student was not stripped of all his energies by these exertions was provided when Charles Fletcher and George Lumb produced their famous and lavish "Bart's in Herts." Christmas show.

At the end of October, 1939, 230 service patients were received in a convoy from France. At last the Hill End Staff might feel that its small weight was being added to the war effort, but the "casualties" proved to be mostly chronic sick who had been accepted for the Services mistakenly in the rush to enlarge the Army at the outbreak of war. More convoys of sick and injured men were received from France during the winter and early spring of 1940, but the main work of the Hospital was directed to civilian patients who would ordinarily have been admitted to St. Bartholomew's Hospital in London.

When the Germans broke through into Belgium and over-ran France in May and June, 1940, numerous convoys of wounded men were received and Hill End strained to keep up with the pressure. On May 25th, 321 casualties were received in one convoy, but our Nursing Staff managed to have everything in order before night-fall. It was at this time that the number of E.M.S. patients at Hill End rose to its maximum of very nearly one thousand. On June 1st, 119 French troops were received and their distribution to the appropriate wards gave the surgeon-on-duty considerable difficulty, for facility with foreign tongues was not his forte: "*Où êtes vous blessé*" did not provide the answers expected until one soldier with sudden secondary haemorrhage from the brachial artery held up his arm with a cry of "*Voilà!*" On June 13th some of the last of the British forces to escape from France were received: many of these proved a lesson in the effects of falling from a height (fractured os calcis and crush fractures of the vertebrae, some of the latter being complicated by transverse fracture of the sternum) for these men had dropped from the cliffs of St. Valery and been picked up by British destroyers waiting off shore. After a short lull the work in the hospital again became augmented with the reception of air-raid casualties consequent on the "Battle of Britain". During this period a land mine with an incompletely opened parachute was

dropped at the entrance to Cell Barnes Hospital. It miraculously failed to destroy six students who turned out from their billets at the lodge to see what was creating the noise caused by the flapping parachute prior to the mine making impact with the drive. And so the work went on throughout the war—the routine work being irregularly diluted with the casualties of war. The consultant staff gradually fell in numbers as the demands for specialists in the Services increased and many registrars found themselves carrying out the responsibilities of consultants. War has a reputation for hastening the advance of medicine and surgery and Bart's men at Hill End did their best to share in this advance. Professor Christie and his team contributed greatly to the understanding of the lung changes occurring as a result of exposure to "blast" from high explosives and Professors Garrod and Christie were responsible for much of the original clinical work on the use of penicillin which was made available for research at Hill End in 1943. Many other original contributions emanated from Hill End during the war years, but it would be out of place to list them all.

After hostilities ceased the consultant staff at Hill End was gradually reinforced by those demobilised from the Services and by those newly appointed to the staff. War with Hitler was over but the battle to return to the Metropolis was waged without respite. One firm after another was restored to its old habitat in the City of London until, in 1950, only six special units remained. In 1953 the Plastic Unit, with which the Bart's staff had always had such happy relations, was moved to Northwood and thus there were only five little nigger boys left to sweat it out until the new Queen Elizabeth II Block was opened in 1961. But working at Hill End had its advantages for there was a great friendliness and informality amongst the medical, nursing and lay staff and everyone felt personally involved in the care of the 200 patients, an atmosphere which is difficult to create in a hospital of 800 or more beds. In such a small group the members of the ancillary departments such as the X-ray and pathology departments become interested in the progress of each patient and the standard of service is thereby improved.

Shortly after the arrival of the new Medical Superintendent, Dr. Palmer, in 1951, the

gloom of the buildings was much diminished by redecoration in light colours and the provision of gay ward furniture. It is true that many of the nurses suffered from inadequate accommodation and all experienced the difficulty of meeting friends in London, but some found the informality of the regime and, in summer, the access to the country, more than compensated for these defects. Perhaps those who suffered most from the rustication of the five special units were the relatives of the patients, for a visit to Hill End by public transport was often a major and expensive undertaking. The medical staff suffered from lack of close contact with their colleagues in London—and perhaps vice versa!—and the students were virtually robbed of some excellent teaching material for their curriculum only allowed two days at Hill End.

On April 4th, 1961, the Governors of St.

Bartholomew's Hospital gave a party in the Recreation Hall at Hill End to all those who had been associated with the work of the Bart's units: it was a good party and, with the Britons' reserve released by all the wine that could be mustered from the district, there were many sad farewells. Now it is hoped that the Units established in their magnificent new quarters in Bartholomew Close will become progressively integrated with the work of the rest of the Hospital and that Bart's will gain thereby. Much as all appreciate their new home there are few "Hill-Enders" who will not remember with nostalgia the flowering cherries outside M.O.Q. and the cheerfulness and motherly attention of "Mary" and Mrs. Colcs.

Our deepest thanks go to all at Hill End who did so much to make our stay there a happy memory. T.

SWIMMING POOL — GLOUCESTER HOUSE TIMETABLE

MONDAY	Nursing Staff only	9 a.m.—12 noon
	Men	1 p.m.—3 p.m. (Open to all Medical and Lay Staff)
	Women	4 p.m.—6 p.m. (Open to all Resident Staff, and to Physiotherapists, Radiographers, Dietitians, Lay Staff, Medical Students)
	Sisters only	7 p.m.—8.30 p.m.
TUESDAY	Nursing Staff only	9 a.m.—12 noon
	Women	1 p.m.—3 p.m. (as above)
	Mixed	4 p.m.—5.30 p.m. (any of the above)
WEDNESDAY	Nursing Staff only	9 a.m.—11.30 a.m.
	Men	12.30 p.m.—2 p.m. (as above)
	Women	3 p.m.—6 p.m. (as above)
	Nursing Staff only	7 p.m.—8.30 p.m.
THURSDAY	Nursing Staff only	9 a.m.—12.30 p.m.
	Nursing Staff only	1.30 p.m.—4 p.m.
	Mixed	5 p.m.—6.30 p.m. (any of the above)
	Sisters only	7.30 p.m.—9.30 p.m.
FRIDAY	Nursing Staff only	9 a.m.—12 noon
	Women	1 p.m.—3 p.m. (as above)
	Nursing Staff only	3.30 p.m.—5.30 p.m.
SATURDAY		POOL CLOSED FOR CLEANING
SUNDAY		POOL CLOSED

Women are requested to wear bathing-caps otherwise the filters become clogged with hair.

THIS PROGRAMME IS SUBJECT TO ALTERATION AS NECESSARY FROM TIME TO TIME

VISIT TO A GERMAN HOSPITAL

"GUTEN MORGEN, HERR Doktor Meistersinger. Guten morgen, Frau Doktor Hockenbach. Guten morgen, Herr Schamberlain." That's me—one morning I arrived complete with a London umbrella and was promptly christened Mister Chamberlain.

As we scrubbed up a conversation developed . . . "Schnitten" . . . "Schnitzel". Could it be the incisions that they were discussing so earnestly? But no, they were all talking about their favourite dishes. Doktor Meistersinger was extolling the virtues of Sauerkraut mit pig's trotters. Fraulein Doktor Schrecknadel warmly defended her love for young cockerel roasted mit Bratkartoffeln. Well, I just had to say something about roast beef and Yorkshire pudding. Pudding—that was still a sore point. Two Christmas's ago I had presented the doctors' dining room with a large Mrs. Peek's Christmas pudding complete with brandy butter mixed empirically and somewhat generously by myself. The doctors had helped themselves *very ad lib.*, with the most disastrous results.

Once in the theatre everything was very familiar except that the anaesthetic was administered by an extremely aged sister of the evangelical nursing order which staffed the hospital. I was most impressed by the speed with which the peritoneum was reached (no haemostasis), and with which the gall-bladders, stomach and appendices were whipped out. During the first Bilröth II that I saw there I noticed that they were making a stoma large enough to admit a pretty good chunk of young cockerel. In answer to my question Dr. M. replied that, Ach, he had heard something about a Dumping Syndrome, but here in Deutschland one never met it. It's just these people

who drink so much milk and eat all these sweet things and plum pudding. . . . Ach, but if one eats Sauerkraut and pig's trotter. . . . Rheinwein. . . .

Up in the wards the Sister was a dear old soul who had recently celebrated her Jubilee after fifty years' service. She would follow the ward rounds with what I called her "Kreuz-Infektions Wagen". Dr. M. led the way, removing the dressings, re-opening wounds, squeezing pus out and prodding the abscesses with a caustic soda stick in a wooden holder, which he did at least wipe on a sterile piece of gauze between patients. Sister would follow with her wagen, pick up all the dirty dressings and with the same fingers apply fresh dressings. No one thought of identifying the organisms or of using antibiotics. It appeared that about 70 per cent of the patients had wound infections. However, very few of them succumbed and temperature charts showed only transient spikes. It merely meant a week or two longer in hospital and a more gentle turnover for the surgeons. At least they don't breed Staph 80 there.

As tactfully as possible I taxed a young house surgeon, fresh from Freiberg, on the question of sepsis. She was very worried that I might go away with the impression that all German hospitals were as primitive as this. This particular hospital was run on very meagre funds and, to a large extent, managed to exist only by the saint-like toil of the nursing order, the sisters of which moved rather reluctantly with the times. I remember it mainly as a happy hospital filled with happy patients, and an atmosphere of . . . well, not quite apathy perhaps . . . but at any rate relaxation.

P.B.B.

Dolls Obsolete!

In this modern age there seem to be more of these plastic children born—perhaps it's the H-Bomb.

Old lady of 86.

A TECHNIQUE OF VENEPUNCTURE

By Arnold Barnsley, M.A., M.D., F.F.A.R.C.S.

THE HAZARDS FOLLOWING the intra-arterial injection of thiopentone are well known. This article is an attempt to popularise a technique which not only virtually prevents these calamities but also simplifies venepuncture.

Drawbacks of the Present Methods

The usual technique taught and practised is the following:—

A suitable vein having been selected, the arm proximal to the chosen site is compressed, either by an assistant or by a rubber tourniquet. A syringe with a small-bore needle (say, No. 17) is then inserted into the lumen of the vein, and on aspiration of blood the injection is made.

This method has many disadvantages:—

(1) The anaesthetist has no control over the amount of pressure needed to render the vein turgid. The optimal amount should be midway between the systolic and diastolic pressures; but many nurses (and tourniquets) are so enthusiastic that they not only obliterate the venous return but the arterial supply also.

(2) Using the aspiration technique with a narrow-bore needle it is difficult to tell whether an artery has been entered in error. Also, if during the injection one is in doubt whether the needle is still *in situ*, re-aspiration will, as often as not, indicate little or nothing, since the fluid in the syringe is probably already opaque.

(3) The technique is clumsy. It is difficult for the sensitive finger-tips—holding a heavy syringe—to appreciate the slight increase of resistance encountered when the needle pierces the vein wall.

Criteria for Successful Venepuncture

(1) A suitable vein should be searched for and rendered turgid.

(2) The anaesthetist should be able, if necessary, to work single-handed.

(3) The risk of subcutaneous or intra-arterial injection should be minimal.

These requirements—and others—would seem to be satisfied by using the following technique.

Materials

(1) The drugs to be injected.

(2) A supply of 10 ml. and 2 ml. sterile syringes—preferably glass. These are better than the plastic variety, which tend to dis-

colour and “bind”.

(3) The usual pack of swabs. These should be of a different colour from those used in the theatre to avoid confusion in swab-counts.

(4) Spirit or iodine are preferable to cetrimide or dettol, which are too soapy for effective use. Excess should be wiped off with a dry swab; spirit (carried into the tissues on the needle) can cause pain.

Technique

Selection of a Suitable Vein

This should be carried out beforehand. To approach an apprehensive patient with needle poised, or worse to search for a vein by multiple exploratory punctures, is an unnecessary ordeal.

Patients who have had previous transfusions or injections should be examined carefully for any thrombosed veins. These will be hard and cord-like; and if compression of the arm is made too soon will look very tempting if they have not previously been “written off”. The most suitable vein, of course, is found usually in the antecubital fossa. To demonstrate this, the upper arm should be compressed by the left hand to such an extent that pulsation can be felt beneath the palm (corresponding to the loud “slapping” sound heard on the sphygmomanometer) and the forearm vigorously massaged upwards with the right hand.

Proximity to the brachial artery (the site of which should be determined beforehand by palpation) need not deter one from selecting an adjacent vein if the unmounted needle technique is followed.

If no suitable vein can be seen or felt in either arm, the hands, wrists and feet should be examined. On the back of the hand there are very often small superficial veins which may be greatly dilated by soaking the hand in hot water. These may need a small-bore needle; and, since blood does not flow readily through these, aspiration into the syringe may be necessary in these cases.

As a last resort one or the other of the external jugular veins may be selected, though a conscious patient greatly resents a needle in the neck. To display these the head should be turned to the opposite side and digital pressure applied above the

clavicle. It will help, too, if the patient is told to strain or “bear down”. In these cases aspiration may be needed since the pressure in the veins of the neck is normally negative.

The Injection

We will assume that a suitable vein in the antecubital fossa has been selected for injection. The left hand is used to apply the correct pressure on the upper arm, and at the same time to pull the skin upwards. This will serve to steady the vein and prevent it from moving from side to side. In senile patients it is often found that veins are both thick-walled and mobile.

Meanwhile, the right hand having cleaned the skin and holding in its palm the syringe with its thiopentone and between the forefinger and thumb an unmounted No. 14 needle (bevel downwards) inserts it through the skin with a sharp “jab” and continues gentle pressure until the lumen of the vein is entered. With practice the resistance of the vein-wall can be felt by the fingers.

Immediately the vein is entered a bead of venous blood is seen to flow from the needle. If by chance the needle should be in the lumen of an artery, bright blood will spurt out, and the needle should be withdrawn and reinserted elsewhere. If there

is no flow of blood, it is possible that the needle may have pierced the further wall of the vein, and in this event withdrawal of the needle for a millimetre or two may cause blood to exude, proving that the lumen of the vein has been entered.

Steadying the hub of the needle with the left hand, the injection is made, carefully watching for a subcutaneous bleb. If a second injection—say, of a relaxant—is needed through the same needle, the syringe should not be pulled off the hilt but “unscrewed” in order not to disturb it.

It was originally thought by the writer that the foregoing technique would obviate the need for more than one syringe per operating session. In point of fact, the inside does not, as he had thought, remain sterile:—

A broth culture of the easily identified *B. Globigii* (Subtilis type) was enclosed in a sterile rubber glove and three syringefuls of sterile water were injected into it, following the methods described. The inside of the syringe was then swabbed and cultured. This culture showed a profuse growth of *B. Globigii*.

The writer is indebted to Dr. N. M. Gibbs of the Royal Surrey County Hospital for his assistance in carrying out this investigation.

LAST MONTH

from Our Charterhouse Representative

ON AUGUST 12TH they came out in their hundreds to shoot a small, low-flying, mottled brown bird of enigmatic habits. By candlelight on the evening of August 13th we were eating expertly cooked grouse, shot on the Saturday. I suppose one is lucky to come by so unusual a vacation employment; one which includes the most luxurious of landed living, a pastime practised better up here in the border country than it is generally in England.

One preclinical student prefers not to work during her holidays; instead she has toured Europe's most beautiful cities this summer and tells me that the Germans are smug and prosperous, the French are not very prosperous and the Italians not prosperous at all but trying hard. Holidaying on the continent in the height of the season one wonders how she managed to see any race other than the triangular-flag-sticking English. An-

other Charterhouse student, working in a Cornish hotel, has been making sure of next March by producing polished service for Dr. Aumonier and family, and for Professor Cave's brother—who is, incidentally, an Air Commodore—and his family.

The confidence of the general public in medicine and the medic really is remarkable; confidence which one sees lodged in medical students even in their earliest preclinical, and quite inexperienced, years. Only the other day on entering the house where I am staying, my arrival was welcomed the more because the youngest daughter was a fortnight overdue with her first offspring. I was quick indeed to assure my hostess that they would be better off with an ambulance driver or even a policeman! Some day one might profit by bluff, claim experience and suggest a fee and cash on delivery.

S.C.-S.

CONFERENCE IN ROME

By Joan Floyd

SOME MONTHS AGO, to be precise in January of this year, there took place in Rome an international conference of social workers, at which, owing to the generosity of the Board of Governors, I represented the hospital. I have now been asked to pass on a little of its flavour, matured by the intervening months, to readers of the Journal.

Over 2,000 of us from some 50 different countries talked, argued and exchanged pleasantries during a midwinter week so warm that one of the social occasions took place on the suntrap roof of a hotel. It was pleasant to have a widely representative membership—doctors, legislators, teachers of social work were all present in considerable numbers as well as practising social workers. In view of the subject of the conference, "Social Work in a Changing World", this wide representation was useful and welcome, as much of our time was spent in trying to work out what is distinctive in social work to justify its status as a profession. In a young profession there is a tendency to make extravagant claims or conversely to be insecure and timid and reluctant to make any claims at all. It is only in contact with outsiders that we can get down to a realistic assessment of our own role, so we were delighted not to be left on our own to spin wild fantasies of a world run exclusively by and for social workers.

One of the distinguishing marks of any profession is the recognition, inside and outside its ranks, of an agreed basis of beliefs and code of professional behaviour. For me one of the most interesting sessions of the conference was the one starkly entitled "Ethics". A great deal of preliminary work on this session had already been done by delegations from some of the countries meeting together in advance, a necessary precaution in view of the vast field to be covered. Even so we did little more than tentatively survey the problem. We started off by accepting what seemed a universally valid warrant for social work: that an individual can lead a more abundant life only as he is more reconciled to society and his own place in it. But in a society which is constantly changing and to which not everyone wishes to be reconciled, what then?

We began the session with a lot of unanswered questions and left with even more, but with a gratifying feeling that these and similar problems are being debated in many other countries besides our own. In at least one country, Holland, the legislature is considering a bill explicitly stating the standards the user may expect of the social worker, as for instance secure knowledge that the social worker would not act in respect of a client without the latter's full consent.

A friend and myself in the plane going over were assured by a seasoned attender of international conferences that as far as the individual is concerned such conferences do not lead one on to a different level of thought or practice, but rather that one or two new ideas or insights strike a spark, and for each individual the sparks are different. For me a spark was struck by a visit to one of the Boys' Towns. I had visited in England various therapeutic communities and been impressed by some and less so by others. Perhaps the impact this visit had on me was partly due to the exotic nature of the country, the strange language, the dignity and good looks of the Italian boys. But all this apart there is no doubt that the nine Boys' Towns of Italy are a stupendous achievement. Only boys with no family are admitted and the Town is their home, although they are under no compulsion to stay. The one we visited, some miles from Rome, is an attractive rural community of one-storied modern buildings, with streets and little squares. Most of those admitted to this, the most recently founded of the Italian Boys' Towns, are emotionally disturbed and spend their first year in an observation block where a team of doctor, psychologist, teacher and social worker keeps a daily diary of the behaviour of each boy. All this may sound like self-conscious theorising run mad, but an hour or two in the Town demonstrates its value. Extreme permissiveness is the keynote and the social behaviour of the boys is founded on a body of law they themselves have created, based like English Common Law on precedent. Each second month a Mayor and Judge are elected by secret ballot and the Mayor chooses his commissioners to take charge of

sanitation, public works and so on. The Assembly of Citizens meets daily and, most interesting of all, the adults of the community exercise no power of veto. We had the extraordinary good fortune to be taken round by Monsignor Carroll himself, the young priest who founded the first Italian Boys' Republic at Civitavecchia in 1945 in an attempt to deal with the problem of the vagrant children of the war. The boys, aged 11 to 18, are on the whole not trained for the professions but for highly skilled trades such as pottery, farming and electrical engineering. The reason we were given is that professional unemployment in Italy, of doctors and teachers among others, is so grave that to train them for the professions would be to do a disservice to the boys. When I saw the small dormitories, gracious and prettily furnished, and the affection with which the boys greeted Monsignor Carroll wherever we went, I wondered guiltily whether to be brought up by loving English parents and sent to an English public school would necessarily in every way fit a boy better for life than if, homeless and an orphan, he had been scraped up from the streets of an Italian city and dropped into this Boys' Town.

Should social workers work within the confines of a given social policy or should they try more vigorously than they do at present to influence it? One of the American schools of social work has recently introduced into its syllabus a terrifying task for the student. Each one has to take an article of state or federal law and find a legislator and discuss it with him, introducing himself not as a student but as a citizen or social worker. The Dean of the faculty concerned who told us this (as a description of him no other word than dynamic seems appropriate) assured us that it gives the student increased confidence in his own special contribution

as a social worker and proves to him that legislators are only human beings, often with very limited knowledge of the background of any particular law. The exercise also, we were told, gives the trainee social workers greater understanding of and sympathy with the problems of the legislator. My chief personal reaction to this impressive step forward in the training of our American colleagues was relief that I was not American and had completed my obviously inadequate training some years ago. My own contributions to social policy making are rather on the lines of the suggestion attributed to the late Will Rogers who during the first world war said he had a remedy to combat the U-boat menace, and when asked what it was replied "Boil the Atlantic". "How?" they said. He replied that he had the big ideas, and it was up to other people to find ways to carry them out.

After the conference some of us took a few days' leave to make our first acquaintance with Rome, or in some cases to renew an old one. We fed the stray cats round the Pantheon from the contents of plastic bags which we had surreptitiously filled from our over-loaded dinner plates and we listened to the stones of Rome speaking to us, in the off-season quiet, of the Borgias and the early Christians, of Leonardo da Vinci and Benito Mussolini. Perhaps by going in winter we missed some of the life and colour of the streets, but the fountains played for us, the Roman boys flirted with us, the opera put on a special performance for us and the Pope gave a private audience to all 2,000 of us, not to mention relatives and friends who happened to be around. With the exception of one nasty taxi-driver I loved it all, and at 1 o'clock one morning trustingly threw my coin in the Trevi fountain.

MODUS VIVENDI

By Sylvia Watkins

IN TWO YEARS at Bart's, the problem of "where to live" has raised its ugly head too often: moving around with the accumulated rubbish (and books) of six years is nobody's idea of fun. Yet, in retrospect, one can see that Fate has been kind to me

after all: few other people can have had the fascinating experience of living—all within a relatively short space of time—in such varied environments as Charterhouse Square, the West End, Islington and South Kensington, not forgetting an enlightening month

spent delivering babies in Surrey Suburbia. It is quite impossible to select a "favourite part of London", for each of these areas has its own particular charm or interest; and coming from the uniform greyness of the industrial North, I found each corner of London more fascinating and colourful than the last, although the differences between them are almost beyond comparison.

To start with, the very streets show tremendous variation. Smithfield still holds one thing in common with the West End: a few surviving wooden sets, relics of an age of carriages and brewers' drays; but now they are slippery with pork fat in the market, or bristling with parking meters in the Pink Zone. Islington, steep hills, narrow streets, surprises at every corner, contrasts sharply with the broad straight avenues of terraced houses in South Kensington; and the endless, monotonous maze of Suburbia is worlds apart from the amorphous jungle of offices, warehouses, churches and shops of the City.

Houses, too, have a tale to tell: the whole of London's social history can be found behind their façades. Tall, elegant, hopelessly impractical mansions in the West End, squarely defend their aristocratic oasis of rhododendrons and roses against the rising tide of economic crises. Islington's squares and crescents, stripped of fifty years of grime and decay, emerge with delicious charm and elegance—a fact now increasingly recognised by architects and speculators, who are rendering the borough fashionable and expensive once again. South Kensington's uniformity is pure façade, for few of the houses are in fact what they pretend to be: either knocked together into hotels, or split into flats, they reflect the rapid disappearance of an age of servants and family retainers. Suburbia, as we know it, has arisen because every respectable Englishman must have his respectable castle, his red bricked, red roofed house, tidy lawn and roses, plus dog or cat or child. Back in Finsbury, the Golden Lane flats have been criticised, but they serve to whet our appetite for exciting things to come in the Barbican site within the next few years.

"Fating out" is perhaps the surest way of investigating the character of any town in the world, and London is no exception. The plush champagne-and-caviar establishments of the West End require no descrip-

tion, nor am I really qualified to comment on them! Espresso coffee and Apfelstrudel is the rule in South Kensington; Chop Suey, Goulash, Sauerkraut or Pasta, in any number of likely and unlikely combinations, are the staple diet in Bloomsbury; multitudes of more or less similar pseudo-Tudor coffee bars serve the population of Suburbia; whilst Islington abounds in snack bars: Wimpy's, hamburgers (or even bacon-and-eggburgers), and the inevitable Fish-and-Chips-in-newspaper. But in years to come, when we look back at our time spent in London and at Bart's, many of us will remember, with a touch of nostalgia, the now familiar Florentine-Smithfield voice calling out "Steak, egg and chips, one slice and tea without".

Shops, too, speak multitudes for their customers. The West End has its department stores, South Kensington its hairdressers and antique shops; Bloomsbury specialises in foreign booksellers, and Suburbia has its "shopping centres"—rows of shops, all virtually identical, regardless of the wares they sell. But for carefree shopping in happy surroundings, Islington takes the prize; local street markets are lined with untidy rows of fruit and vegetable stalls; old and new clothes, fish and meat, hundreds of shoes hanging from beams by their laces; little old ladies in little old hats selling eggs or brooches or beetroots. Here you may buy a tape recorder or jellied eels at "fabulously reduced" prices, or groceries at penny-in-the-shilling reductions. And here, too, having completed your shopping, you may linger a little longer, just to indulge in the fascinating and rewarding study of people.

For, when all is said and done, it is the people who determine the character of a place. We can all visualise the West End hostesses, the South Kensington secretaries and models, the suburban housewives, and the City office girls and business men. But I have a specially soft spot for the children of Islington: always noisy, usually grubby, often naughty, and sometimes even delinquent, but they are never dull; they have no prototype, no "local characteristic"—they are all individuals, and endearing ones at that. Perhaps, after all, the real secret of London's charm lies, not so much in its wonderful buildings and beautiful parks, but rather in the infinite variety of Londoners and of London Life.

THE SEARCHERS OF THE DEAD

AS DANIEL DEFOE was only about five years old in 1665, his "Journal of the Plague Year", written fifty-seven years later, could describe little that was personally observed and is regarded as a far from exact history. But one part of it is certainly accurate. That is the quotation of: "ORDERS Conceived and Published by the Lord Mayor and Aldermen of the City of London concerning the Infection of the Plague, 1665". This describes the officials appointed to deal with the problems raised by the visitation and outlines their duties. Amongst the details appointing Examiners, Watchmen, Chirurgeons and Nurse-keepers; describing the airing of bedding, burial of the dead, marking of houses, raking of streets, prohibition of tipping and cleaning of hackney-coaches—amongst these details I came upon one appointment which seemed particularly interesting:—

"That there be a special care to appoint women searchers in every parish, such as are of honest reputation, and of the best sort as can be got in this kind; and these to be sworn to make due search and true report to the utmost of their knowledge whether the persons whose bodies they are appointed to search do die of the infection, or of what other diseases, as near as they can. And that the physicians who shall be appointed for cure and prevention of the infection do call before them the said searchers who are, or shall be, appointed for the several parishes under their respective cares, to the end they may consider whether they are fitly qualified for that employment, and charge them from time to time as they shall see cause, if they appear defective in their duties.

"That no searcher during this time of visitation be permitted to use any public work or employment, or keep any shop or stall, or be employed as a laundress, or in any other common employment whatsoever."

Here is a peculiar social phenomenon—honest women, not allowed to be employed in any duty save that of conducting "to the utmost of their knowledge" a sort of "external" post-mortem, and subject to qualifi-

cation and reprobation by physicians. On closer examination I was to find that in the main such women were not honest; restriction of employment worried them not at all—they were paupers; their knowledge was minimal; and those very few physicians who had not fled with the coming of the plague seemed not to bother themselves about such matters as "fitly qualified" and "defective" searchers.

While no definite date or event is known to mark their foundation, the Parish Searchers originated long before 1665 apparently in the context of bubonic plague, which was an almost continuous hazard from 1348 to 1668.

Each parish appointed its own searchers, usually two in number and always women. It was most convenient to appoint paupers—who would otherwise have to be supported by the parish—because, as searchers, they were allowed to charge a fee of fourpence from the relatives for each corpse they examined. Most were old, dirty, unwholesome hags, open to bribery and corruption. The measures imposed by authority when the infection descended made life particularly difficult for the relatives of the dead and their desire to avoid this centred particularly on the searchers. Supplementation of the fee, either by money or ale, persuaded them either not to view the corpse at all, or to give some false report as to the cause of death. Their incompetence was such that it was not unknown for them to pronounce a live person dead.

When a parishioner died the sexton would be informed and he would toll the bell and dig the grave. The message being conveyed, either directly or by the bell, to the searchers, they proceeded to the house and observed the corpse. In accidental death their report was probably always correct; in plague it was likely to be often so. A number of signs of plague which they were to look for is included in some Privy Council Rules and Orders issued in May, 1666—"to search all suspected bodies for the usual signs of the plague—viz., Swellings or Risings under the Ears or Arm Pits, or upon the Groynes;

Blains, Carbuncles, or little Spots, either on the Breast or back, commonly called Tokens”.

The accurate, inaccurate or falsified cause of death was reported by the searchers to the Parish Clerk, who each week took the records of his own Parish to the Company of Parish Clerks at their Hall in Brode Lane, Vintry. In times of plague the totals were published by the Minister of State as the Bills of Mortality. Those sects with their own burial grounds, such as the Quakers,

did not notify the Church of their deaths and so escaped inclusion in these Bills.

It was nearly two-hundred years after the Great Plague that a select committee of the House of Commons on Parochial Registration was set up. As a result of its recommendations the institution of Searcher ceased to be a part of parish life on the introduction of the Act for Registration of Deaths in 1837 the first year of the reign of Queen Victoria. B.D.

FILM SOCIETY REPORT

During the past year the Society's popularity has continued to increase; membership now reaches a total of nearly 350. The attendance at the individual shows varied considerably, "High Society," the most popular, being shown to a packed house.

Regrettably, no further progress can be reported on the film which the Society is making about student sporting activities. The delay is due to the lack of sufficient students who are both capable of operating a ciné-camera and who have the time and the will to do so. Anyone who is interested would be most welcome. The only other activity of the Society has been to place in the Abernethian Room copies of "Sight and Sound" and "The Monthly Film Bulletin".

In choosing the films for the next season, the Committee tries to strike a balance between film classics, which tend to have a minority appeal, and the showing of good entertainment films, which, however, have usually been seen already by many people. Anyone dissatisfied with the choice of films can, of course, remedy the matter by standing for election on to the Committee at the Annual General Meeting in October.

The programme for the rest of the year is as follows:

- 25th Sept "Seven Samurai"
- 9th Oct. "The Witches of Salem"
- 23rd Oct. "Henry V" (in colour)
- 6th Nov. "Smiles of a Summer Night"
- 20th Nov. "The Cruel Sea"
- 4th Dec. "The Ladykillers"

Seven Samurai, which has been called the "best Western since 'Stage-coach'", and upon which "The Magnificent Seven" was based, tells how professional warriors help the inhabitants of a poverty-stricken village in sixteenth-century Japan to defend themselves against bandits who annually raid them. It is essentially a thriller, full of suspense, with a savage violence, though it is also curiously moving.

The Witches of Salem. This terrifying exposure of the power of denouncement is a brilliant adaptation by Jean-Paul Sartre of Arthur Miller's play "The Crucible". Set in a puritan community of Massachusetts in 1692, it deals with the events which led to the notorious witchcraft trials.

Henry V. Sir Laurence Olivier's magnificent film version of Shakespeare's play. Incidentally the justifiably famous battle scenes were shot in Ireland so as to avoid the danger of air attack. World War II was not yet over.

Smiles of a Summer Night. A delightful comedy on the "La Ronde" theme. This film, directed by Ingmar Bergman, puts forward the thesis that love is a mild infection which none can escape.

The Cruel Sea. The screen version of Nicholas Monsarrat's best-selling novel.

The Ladykillers. This somewhat macabre but very funny tale is about a gang of crooks who, posing as a string quartet, abuse the hospitality of an old lady by using her house in which to plan an armed robbery.

SPORTS NEWS

Cricket Club

In spite of the good weather July, unlike preceding months, was not successful. This was largely due to the absence of several members called away by exams and other labours more pressing. On two occasions, however, the full team turned out against St. Mary's in the Cup, of which more later. Despite our failures the cricket was most enjoyable, particularly the match against the Past Bart's side led by the President, Dr Oswald.

Certain feats deserve special mention — Jailler's first fifty for the hospital which was a fine innings putting both Mackay and Hancock in the shade; the advent of Warr to the ranks of the bowlers; and some splendidly persistent bowling by Harvey and Niven who toiled so hard on perfect batting wickets.

July 1st (H) Lost Bart's 153 (Merry 42, Pagan 28).
Jesters 157 for 3.

July 2nd (H) Drawn Bart's 229 for 7 (Merry 42, Phillips 39, Delany 37, Harvey 33).
Old Roans 225 for 6 (Delany 3 for 52).

July 8th (H) Won U.C.S. Old Boys 175 for 2.
Bart's 176 for 9 (Delany 41, Warr 34, Harvey 29, Davies 28).

July 9th (H) Lost Bart's 209 for 5 (Jeffreys 88, Davies 71).
Past Bart's 210 for 4 (Delany 3 for 88).

July 16th (H) Drawn Incogniti 262 for 7 (Warr 3 for 36).
Bart's 164 for 5 (Warr 67, Merry 35, Pagan 28).

July 22nd (H) Won Nomads 129 (Merry 6 for 50).
Barts 133 for 7 (Harvey 54 n.o., Savage 37).

July 23rd (A) Lost Dartford 301 for 6 (Harvey 3 for 125).
Bart's 198 (Jailler 45, Warr 41, Merry 39, Harvey 35).

July 29th (H) Draw Old Cholmclians 269 for 6 (Merry 3 for 48).
Bart's 202 for 5 (Jeffreys 83, Jailler 63 n.o.).

CUP MATCHES

July 6th—2nd Round (A) St. Mary's 295 for 5 (Stoodley 3 for 135).

Bart's 283 for 6 (Delany 122, Jeffreys 55, Stoodley 45 n.o., Harvey 35).

A slow start by Mary's and some good bowling by Harvey and Stoodley were the features of the morning's play, the score at lunch being 106 for 4. After lunch, however, it was a different matter and Bart's were made to toil in the very hot sun by two fine batsmen who were undefeated at the declaration. Bart's started disastrously and were 25 for 3 at tea. Afterwards Delany and Jeffreys restored the situation by putting on a hundred. Delany continued to a fine century, and with quick runs from Harvey and Stoodley, Bart's only just failed to score the necessary runs.

2nd Round Replay (H) Bart's 292 for 9 (Warr 85, Harvey 53, Delany 53, Jailler 34).

St. Mary's 293 for 7 (Harvey 3 for 66).

Bart's batted first and were well started with a fine knock from Warr. After lunch steady batting by Harvey, and brisk hitting from Jailler and Delany enabled Merry to declare, leaving Mary's the task of hitting 90 runs an hour to win. This challenge they accepted and three fine innings by their middle order batsmen enabled them to win with five minutes to spare.

So ended this tremendous battle with St. Mary's in which 1153 runs were scored for the loss of 28 wickets—a tale which tells how heavily the dice were loaded against the bowlers.

SUSSEX TOUR

August 6th Won Ferring 137 for 9 dec. (Davies 4 for 11).

Bart's 138 for 9 (Davies 50, Pagan 26).

August 7th Won Bart's 161 (Jeffreys 47, Davies 38).

St. Andrews, Burgess Hill, 139 (Davies 4 for 58).

August 8th Won Rottingdean 123 (Garrod 3 for 34, Harvey 3 for 26).

Bart's 124 for 6 (Stoodley 55, Jeffreys 32).

August 9th Won Ditchling 56 (Garrod 5 for 12).
Bart's 57 for 1 (Pagan 30, Niven 24 n.o.).

August 10th Won Bart's 200 for 9 (Merry 41, Warr 35, Stoodley 32 n.o., Jeffreys 30).
Barcombe 111 (Warr 6 for 9).

The person detailed to write an account of any tour is in an invidious position because some of the most amusing incidents are quite unprintable in the Journal. Be that as it may, this year's tour of Sussex, based as usual on the pleasant village of Rottingdean (which, incidentally, has the second oldest cricket club in the world), was

a great success off the field, and also on the field—well, five matches won out of five played is no mean feat.

Davies distinguished himself by some good bowling and fielding to his own bowling, and by two fine innings including 22 in one over at Ferring. Garrod bowled exceedingly well in his two matches. The other honours were very evenly shared. The result against Rottingdean was particularly gratifying since Bart's has been trying in vain to beat them for several years. The game was played in a force 7 gale which lent a certain amount of interest, the usual banter amongst the Bart's fielders being reduced to sign language (of a fairly international convention!).

BOAT CLUB

CAPTAIN'S REPORT 1960-61

CONSIDERABLE INTEREST HAS been aroused throughout the hospital this year by the numerous activities of the Boat Club and of the 1st VIII in particular. In addition many Old Bart's rowing men have written and enquired about the 1st crew, some stimulated by the flattering picture on the back page of the *Observer* the Sunday after Marlow regatta. It is to satisfy this interest that I have been invited to trace the development and progress of our crews.

Foundations were laid last October for the 1st VIII when four members put in six weeks' training for the United Hospitals Regatta, going out three times a week. This crew put up the best effort in recent years in the senior event losing in the final by only 6 ft.¹ Here was the nucleus on which to carry on building and although, ideally, it would have been preferable to have had all the possible candidates for the VIII on the water at that time this proved impossible. However, at the Annual Dinner last November, I felt justified in stating that if certain criteria could be fulfilled the club could confidently look forward to seeing an VIII representing the hospital once more at Henley Royal Regatta. (Incidentally only two previous VIII's have represented the hospital before at Henley—the last in 1956.) The criteria were as follows:

1. That a trial VIII should be formed

in January composed of oarsmen prepared to row and tub on a two days a week basis until the Tideway Head in March and thereafter, if selected, to row every evening excepting Sundays until Henley in early July. This aim was fulfilled and the eventual crews chosen from fourteen people, who not only were of suitable standard but were prepared to make the enormous sacrifices entailed. This was gratifying.

2. That the Captain should provide an experienced coach every night for the last 12 weeks of training. The club is indeed rich in friends—that we were able to prevail on the generosity of so many, both old and new, in this vital capacity was heartening. I use the word friends advisedly, for the club cannot afford to give them any remuneration for their advice or time. This is particularly applicable to the Henley coaches who spent five hours on the tow-path with the crew each day.

3. That in view of the two hours involved in travelling to the University Boathouse at Chiswick and back and the number of outings involved, the Committee should find somewhere nearer Bart's for the crew to train. This was a tall order, but for the whole project to be a practical possibility it was an absolute necessity. It was largely due to the persistent efforts of Tony Knight—the Club's Secretary—that we launched our

boat on the murky waters of the Grand Union Canal at Paddington on April 20th. It was he who navigated the club through the "tapes" of Local Government, allowing us to keep our boat in the Borough dust yard, and he who awoke the necessary authority of the British Waterways for permission to "ply our craft". Paddington is only 20 minutes from Bart's, a saving of some 40 minutes over Chiswick. The Canal, although not ideal, provides stretches of 5-6 minutes' rowing (. . . and excellent practice for coxes!).

The Trial VIII duly appeared in January and put in 11 weeks' training for the Tideway Head of the River Race. During the same period a Novices VIII, chosen from promising freshmen, was formed and accompanied the Trial VIII to the Bedford Head where both crews performed creditably.² During these weeks the trial VIII was accompanied for one of its outings each week and benefited under the following coaches: Dr. B. Harold, Dr. B. Middleton, P. Mansell, and R. H. T. Ward. In addition, both crews

did circuit training in the Gym two nights a week. These two crews were joined by a Gentlemen's VIII for the Tideway Head—only the first crew improving their position.³

After a fortnight's rest the 1st VIII went into serious training on the Canal as planned with the United Hospitals Bumping Races as the immediate objective. Several changes were made within the VIII and R. H. T. Ward replaced N. Whyatt, who unfortunately lacked the necessary experience to hold his place. Whyatt's improvement gained in the trial boat made him a useful "7" in the 2nd VIII formed at that time. The novices became the 3rd VIII and a 4th VIII also went into training. These four eights were joined by a Gentlemen's VIII and a keen Rugger Boat for the Bumps. Mr. C. N. Hudson (St. B.H.B.C. and Queens' College B.C.) coached the 1st VIII for three weeks preceding the bumps and undoubtedly his fiery approach, backed by sound advice through much bumps experience, was largely instrumental in the crew's success in catching Westminster and Guy's 1st VIII's. The other



The 1st VIII in training at Henley.

VIII's entered had various fortunes.⁴

It had been anticipated that the call for speed so early after the VIII's reformation would result in "cracks" appearing. There had been no time for style and unity and H. Coleridge, the promising new stroke, and A. I. Wilson had both obviously felt the strain. We could not have wished for a better person than Mr. J. Currie (St. B.H.B.C. and Queens' College, Cambridge), now a Registrar at St. Thomas's, who gave up much precious time to coach us in the basic essentials during the following three weeks. Before the 2nd VIII disbanded, K. M. Stevens, J. Ransome and E. Hoare from that crew were given trials. As a result of this E. Hoare displaced A. I. Wilson. This move was not an easy one, for Wilson had served the VIII long and was by no means a poor oar. Hoare, of equal ability, simply had the same approach as the rest of the crew and fitted in better. Shortly after this the Henley crew was announced:

Bow	D. E. L. King (Westminster)
2	N. E. Dudley (Bedford)
3	A. H. Knight (University College School)
4	E. Hoare (Caius College, Cambs.)
5	J. D. D. Bartlett
6	D. C. Dunn (Forest & L.M.B.C., Cambs.)
7	R. H. T. Ward (Shrewsbury and L.M.B.C., Cambs.)
Stroke	H. Coleridge (Monckton Coombe)
Cox	I. Cole (King's School, Canterbury)

Spare man A. I. Wilson (Bradford) Both Ward and Dudley in this crew were senior oarsmen which unfortunately curbed the crew from entering anything but the senior events—pitting us at every regatta against the best in the country.

Meanwhile the novices became the 2nd VIII and they continued right up to Marlow. That crew were as follows: Bow: T. Hamer. 2: B. Lee. 3: D. Robins. 4: R. Anderson. 5: G. McElwain. 6: I. Basharatulla. 7: B. Garson. Stroke: M. Aveline. Cox: I. Gibbs. They entered their first regatta on April 29th at Mortlake, where they lost in the Maiden VIII's event to the eventual winners, Vesta.

At the end of May, John Currie handed over to T. Edwards, Esq. (1st and 3rd Trinity B.C., Cambs.), for the next three weeks.

Tim undoubtedly had us for a difficult period—several of the crew were in the midst of exams and Henley was that little bit too distant to add the extra impetus that its proximity excites. Nevertheless, he saw us in the final of the **Allom Cup**—London University Senior VIII's, where we gave Imperial College a reasonably good race. After staying with them over three-quarters of the course they drew away to win by two lengths, underlining the fact that our fitness still left much to be desired. Had we seen the red light then the fracas the following week at **Walton Regatta** on June 10th might have been avoided. As it was we vastly underestimated the Midland Bank R.C. and thoroughly deserved the beating they gave us. The 2nd VIII were unfortunate to meet Vesta—the same crew that had beaten them at Mortlake. There was no danger of the first VIII underestimating their opponents at **Reading Regatta**, however—R.A.F. Cardington, typical of Service crews, are notoriously hard to crack and so they proved to be. Leading by a length a hundred yards from the finish the race looked in Bart's favour, but a great challenge by the R.A.F. was not restrained and we lost by a quarter of a length. Two frustrating defeats after a good start left the crew with their tails down, but not a little waspish! Bill Atkinson (London Rowing Club and Clare College, Cambs.) must have sensed this when he took over for the last week of training in London. He worked the crew hard, rowing pieces of three miles and more. By then we had said farewell to the Canal and moved back to the Tideway. It was, I feel, a move that should have been made a week earlier, for the Canal had shown itself to have limitations on stamina build-up. As a result of this toughening up process the 1st VIII put up a gutty show at **Marlow Regatta**, beating Worcester College, Oxford, easily and Trinity Hall, Cambridge, by a quarter of a length in the Thames Cup.

Due to the generous consent of the Dean and those members of the teaching staff concerned, the entire crew plus spare man then moved direct from Marlow to take up residence for the Henley fortnight. We were fortunate to enjoy the warm hospitality and good services of mine host at the "Greyhound", a 17th-Century Inn in Wargrave, a village some three miles outside Henley. The following Monday the last stage of our training began when we had

an energetic row up through the locks from Marlow to Henley with Emmanuel College, Cambridge. In the afternoon the crew made the acquaintance of our Henley coaches. During the past few years we have been honoured to churn the sacred Henley waters under the direction of a delightful personality and distinguished oarsman in the person of Tom Langton—a Cambridge Blue and Jesus stalwart. Once more to our eternal benefit he offered to help us. This year he was joined by David Chip (King's College, Cambridge, B.C.), a jovial Reuters correspondent on holiday from Asia, who lightened the load by supervising an hour's tubbing each morning which proved very beneficial.

On Monday evening we received official notification from the Regatta Stewards that we would be required to row in the eliminating races against Clare College, Cambridge, the following Saturday—a hard blow to our esteem after our Marlow showing. On closer examination, however, we could have expected little else as no less than seven preliminary heats of the Ladies were scheduled leaving only eight crews not required to row, and they the cream of the Oxford and Cambridge college 1st boats. The release from tiring hospital life coupled with expert coaching under excellent rowing conditions has always made for rapid progress. The necessity of having to row in the preliminaries reduced the advantage time of these halcyon days from eight to five. In the outcome we rowed our best effort after a week—two days later.

Our whole plan had to be changed in an attempt to hit peak by the end of the week. On the Tuesday we rowed to Fawley in 3 mins. 25 secs. with Downing, and on Wednesday did one of the fastest Barrier times of the day with Jesus II in 2 mins. 3 secs. On the Thursday a full course was rowed with the pacing being provided by Royal Chester to the Barrier and racing in with Nottingham University to the finish. Challenges from both crews were held off in good style. Friday was spent quietly. During the second of two outings we rowed a Barrier in 2.4 with Christ's. Saturday dawned and the crews awoke to what will doubtless be the hottest day of the year. The result of months of training was coming to a climax. For the original four who started back in October this was the 105th outing after six and a half months' training, and the complete VIII had put in 65 outings

in two and a half months.

When we reached the start barely a ripple stirred on the surface of the water and the temperature hung lazily around the 100° in the shade level—not that there was any shade to be had on this exposed stretch of the Thames! Both crews had a clean start and Bart's were in the lead by a small margin at the end of the Island. The crews were each striking around 38. Clare spurted past the Barrier and gained an advantage of about half a length. We were rowing well within ourselves—the situation did not feel dangerous. This state of affairs lasted until Remenham with Bart's still well within striking distance and under-pipping Clare by about 3 strokes a minute. The coaches on the bank, the supporters, and the crew themselves knew that all they were waiting for was the "take-in" to see Bart's forge into the lead. The spurt was called for, the cox, who steered magnificently throughout, rang the bells . . . the response never came. Someone, something, somewhere had snapped. Fortunately the crew had enough tenacity to hang on, losing by only 1½ lengths. Blinking away the perspiration and swallowing their anguish nine bitterly disappointed men lifted their boat onto the landing raft.

The following week when we had salvaged our spirits there was no stopping us—the crew just had to get in a boat and prove themselves. In this unbridled spirit Jesus II and St. Edward's School took some fairly truculent pacing. On the Wednesday Clare lost to the finalists, Eton, by a close margin after a magnificent race. We could not have hoped to beat either crew on that showing. However, our time on the Saturday placed us well in the class and a more generous draw might have seen us through to the Thursday. No other hospital VIII's entered for comparison.

In retrospect, comment has it that this was probably the best VIII that Bart's has ever produced. If this is true then it is to all the coaches, and to Tom Langton in particular, that a large share of the credit must go. We take advantage of these pages to thank them. Certainly the VIII was a force to be reckoned with and Henley crews will respect them accordingly next year. The precedent has been set, the start of a comeback has been made. It is up to the Club to give next year's captain, D. C. Dunn, all the support they can and to aim yet higher.

Addendum: R. Weller, a Bart's prelini-

cal, coxed the London 1st VIII that lost to the Russians in the semi-final of the Grand. A. I. Wilson, who was spare man for Bart's, a position which he filled sportingly and with great credit, held office as Secretary of the

BOOK REVIEWS

William Harvey, Englishman, 1578-1657 by Kenneth J. Franklin. London, MacGibbon and Kee, 1961. Pp. 151, illus. 18s.

Possibly more has been written about William Harvey than about any other medical man, yet we still know very little about him. Probably the most readable biography was that written by Sir D'Arcy Power in 1897 for the Masters of Medicine series, but we need a modern definitive life based on a scholarly investigation of sources hitherto almost unexplored. The fact that among the masses of literature produced during and since the tercentenary celebrations there are several new items of important Harveiana, suggests that a thorough investigation might well produce fresh material.

In recent years we have had a translation of *De motu locali animalium* by Dr. Gweneth Whittridge, with the promise of a new transcript and translation of the *Prelectiones* from the same source; we have had Professor K. J. Franklin's scholarly translations of *De motu cordis* and of Harvey's two essays and letters. These alone justify the celebration of yet another centenary. Obviously, Professor Franklin's life-connection with the study of the circulation, and his active participation in popularising Harvey's work, have inspired him to produce this biography, which summarises Harvey's activities, and quotes freely from the opinions expressed by others. We see the development of Harvey the scientist, observing the workings of his mind as he conducted his innumerable experiments, and attempted to convert his opponents by means of simple explanations that would have convinced any but the most obstinate. The ideas of Harvey's forerunners and contemporaries receive consideration, and Harvey's own contributions are reviewed in perspective.

This well-produced book might be considered as a conspectus of Harvey material, reviewing the literature, evaluating his writings, providing an extensive list of references, and bringing to the subject the wealth of experience gleaned by extensive contact with Harvey's writings.

J.L.T.

Pathology of the Nervous System. A Student's Introduction (Third Edition) by J. Henry Biggart. Livingstone. 40s.

Most medical students would agree that neurology constitutes one of the most confusing and difficult subjects in the curriculum. In this field, perhaps more than in any other, a clear understanding of the pathology is imperative if the diseases are to be properly understood and recognised clinically. It is for this reason that the new edition of Professor Biggart's book is so welcome.

United Hospital B.C. for the second year running.

¹ Full report—December issue, *St. B.H.J.*, 1960.

² Full report—April issue, *St. B.H.J.*, 1961.

³ Full report—April issue, *St. B.H.J.*, 1961.

⁴ Full report—May issue, *St. B.H.J.*, 1961.

The book's motto, that "The Study of Things Caused must precede the Study of the Causes of Things" illustrates the importance which the author attaches to the correlation of pathological and clinical phenomena; and he emphasises throughout the disturbances of physiology (and hence the clinical features) resulting from anatomical disorders.

This book is, perhaps, a little too detailed for the student's examination requirements, but nonetheless a study of it is well worth while: to read it systematically is interesting and useful, whilst as a reference book in the study of clinical neurology it is invaluable. For those specially interested in neuropathology it is as lucid an introduction as one could wish for, and the lists of references serve as useful guides to further study.

The numerous illustrations and the print are of excellent quality, and the index is comprehensive. Indeed the only criticisms amount to minor annoyances: the (inconsistent) use of some American spelling is irksome; and glossy paper is infuriating to those who do most of their reading by artificial light. However, these very trivial details do not detract from the value of this excellent book.

S.M.W.

Introduction to Pharmacology by J. J. Lewis. Pp. 826. E. and S. Livingstone (1960). 55s.

This is surely one of the most readable books on pharmacology, and should prove useful to those preparing for examinations in both pharmacology and therapeutics. Mr. Lewis is at pains to demonstrate the relationship between the structure and function of drugs, and the clinical material is brief and to the point. The chapters on drugs acting upon the C.N.S. is a "must" for examination candidates.

Inevitably when a book has taken some time to produce it is not completely up-to-date on all topics but the spironolactones are a surprising omission.

Opinion seems to be swinging steadily in favour of the metric system for expressing dosages. It is a pity there is not more uniformity in nomenclature—Mr. Lewis even uses American trade names in some instances! His book, with its academic bias, and Professor Alstead's revision of Dilling with its clinical approach, emanating as they do from the same University, are a most useful contribution to the students' understanding of pharmacology and therapeutics.

A.J.B.M.

Principles of Surgery and Surgical Nursing by Selwyn Taylor, D.M., M.Ch., F.R.C.S., and Olga Worrall, S.R.N., S.C.M., S.T.D. English Universities Press, Ltd. 15s.

The Modern Nursing Series, of which this is the latest book to appear, is gradually covering the entire field of nursing education and practice. A doctor and a nurse, mainly drawn from the London Teaching Hospitals, collaborate in the clinical ones. St. Thomas's and Guy's have already contributed, and the one under review is from King's College Hospital.

The format is neat and business-like, and the type readable and attractive. The aim of the editors is evidently to keep the series reasonable in size and in price at a time when clinical books tend to become more and more weighty. Surgery and Surgical Nursing is therefore compact, easy to the hand and most reasonably priced. The great disadvantage of this condensed production is that there are some excellent diagrams, but that many of them are so small that they fail to make their proper impact.

The authors have written a book in which all branches of general and special surgery have been covered, and in which surgical and nursing care has been related to anatomy and physiology of the systems concerned. The success of this approach can be seen in the section on the ear, nose and throat, and on the adrenal glands. Surgical practice differs very widely, but the authors have confined themselves to statements of principle with which few could disagree. To have condensed so much information into 290 pages, and to issue the book at less than the price of a novel is reason for congratulating authors and publishers.

In a book written by two authors duplication of material is difficult to avoid, and here one finds syphilis described twice on pages 29 and 260, while tuberculosis of the spine and gibbus formation is on page 225 and again on page 236. It is hoped that the authors will soon be asked for a second edition of this modestly-priced and informative book, when one or two such minor adjustments may be made.

W.E.H.

The Practical Management of Head Injuries by John Potter. Lloyd-Luke. Pp. 84. 12s.

Head injuries play an all-important part in the life of the casualty officer. They require an adequate knowledge of how to judge their severity and involvement of the intracranial tissues as well as knowing what complications to expect in the management of the case. Mr. Potter (an ex-Bart's man) has written this book, not as a conventional text-book for the finals students, but as an introduction, with special emphasis on those aspects which are of the greatest practical importance. He does well by placing great emphasis on the approach to the subject; namely, alertness, anticipation, and a sense of anticipation.

This little book is written in a style that is far from dull and each section is set out in a concise and well tabulated manner. This book should be of great value to those embarking on casualty work and to those who wish to refresh their memory on this important and fascinating subject.

R.G.M.

Forensic Medicine by Keith Simpson. Fourth edition. Edward Arnold, Ltd. Pp. 341. 32s. 6d.

The only advantage of possessing this instead of the third edition, is that the laws and lists relating to Dangerous Drugs and Poisons have been brought up to date and the 1959 legislation regarding the certification of insanity has been explained. Apart from these scanty additions, the contents of this "revised edition" appear to be unchanged. However, this book is far from being out of date, and the absence of need for its revision is a criticism for, rather than against it.

In contrast with most medical textbooks, it can be read at length without boredom, which is due to the easy style and the faint touches of dry humour throughout. An irresistible example of this latter quality is the second illustration; a particularly macabre stabbing scene, occurring in the section entitled "Has Death Taken Place". The caption reads, "Injuries arousing suspicion".

It would be most regrettable if this book were to increase in size, for at present it is short enough to be digested with rapidity and yet still covers ground amply sufficient for examiners and the General Practitioner. In fact, it is just as useful a reference book for the graduate as it is a textbook for the student. The cost is too great, but is no doubt due to the mass of excellent illustrations.

Dentistry for the Pre-School Child by Davies and King. Livingstone. Pp. 268. 32s. 6d.

It is too easy to criticise a book of this length dealing with a highly specialised subject in view of the existence of several new American texts of twice its length and three times its cost.

However, here is an attempt to put into print an approach to dentistry for pre-school children at a realistic price, for few students will buy a more expensive book on a subject which, as yet, does not form a major part of British final examinations.

The authors have fallen between the two stools of a reference book and a manual, but this could be corrected at the next edition for I am confident that it will become a popular book with undergraduates.

Proceedings of the Fourth International Congress on Clinical Chemistry. Edinburgh—14th to 19th August, 1960. E. & S. Livingstone, Ltd., Edinburgh and London, 1961. Pp. 212. 35s.

In 1960 an International Congress of Clinical Chemistry was held in Edinburgh. The proceedings now published can only partially convey the part which such a Congress plays in the life of Chemical Pathologists from all over the world. As it is stated in the Introduction: "An international scientific congress is more than merely an occasion for the presentation and discussion of the results of recent research; it is an opportunity for the assessment of progress, and in fields in which advance is especially rapid, such assessments can more fruitfully be made by means of symposia, whose contributors should be men of eminence. It is also an opportunity for the younger scientist to assess the dimensions of his

chosen subject and (in the words of the Principal of the University of Edinburgh, Sir Edward Appleton) such a congress may fairly be described as a "peripatetic university".

There were four symposia which concerned the following growing points in Chemical Pathology: Plasma Protein Turnover and Disease, Mechanisms of Urine Production, Enzymes in Clinical Chemistry, and Congenital Abnormalities of Metabolism.

Perhaps least known of these new developments are those concerned with the theory of urine production involving in the renal tubules a counter-current multiplier system, and this is explained here fully by the pioneer, H. Wirz from Basle.

Another important development is the recognition of iso-enzymes which are discussed by F. Wroblewski of New York. He explains the multiplicity of enzymes which compose what we generally assume to be a single protein—serum lactic dehydrogenases. Just as no-one nowadays speaks of serum phosphatase in general but sub-divides according to pH optima into alkaline and acid phosphatases, and then proceeds to sub-divide the acid phosphatases according to whether they are sensitive to formaldehyde, so will future refined methods sub-divide most of the serum enzymes, not only on the basis of the substrates on which they act, but also according to the tissue from which they originate.

Thus, in future, one may not measure serum lactic acid dehydrogenases as such but state whether a raised level is derived from the heart muscle, the liver or the central nervous system.

H.L.

Modern Surgery for Nurses edited by F. Wilson Harlow, M.B., F.R.C.S. (Eng.). Heinemann. 30s.

The editions of Mr Harlow's textbook appear at ever-shortening intervals, to bear witness to its popular success. The reasons for this are easy to see; the nurse can look into this book for information on practically any surgical subject, and find what she wants. Not only will she be given the signs and the treatment, but in many cases a photograph or a diagram as well. The illustrations are an outstanding feature, and have been increased in number.

Mr. Harlow is an energetic reviser, and many chapters have been re-written. It is hoped by at least one reader that the author will in the next edition expunge the facetious quotations at the head of each section. It would be difficult to find other grounds for criticism of his book.

W.E.H.

A Short Manual of Venereal Diseases and Treponematosis by R. C. L. Batchelor and Marjorie Murrell. Second edition. E. & S. Livingstone, Ltd., Edinburgh and London, 1961.

Tuberculosis and syphilis are the two chronic diseases that have always dominated student pathology courses. With the great decline in clinical material in the British Isles it has been suggested

that this domination should cease. There is some force in this argument but the numbers of cases of these diseases in the world is still so formidable that study of them must continue. Besides, syphilis provides such multiple pathology that it justifies its inclusion in any course by covering so much ground. This book can therefore be recommended because it will help the student to pass examinations. It has, however, much more than that to recommend it. It gives simple, clear and concise accounts of syphilis and other treponemal diseases (yaws, bejel, pinta, dichuchwa and sibiens or sivvins); and of gonorrhoea. There are ample illustrations and the style is readable—even for a harassed finalist with impending examinations. The authors' breadth of outlook has led them to trace the history of venereal diseases, discuss their non-venereal aspects and their influence on mankind's history as well as presenting their clinical and pathological stories. Such matter is very welcome.

Naturally there are a few faults. The preface states that the first edition had been published primarily for nurses, although a wider appeal was anticipated. As this occurred the second edition has had its scope revised; but as a work for doctors or students more revision was necessary. Two pages on the detailed technique of venepuncture and a page on giving an intramuscular injection are examples of purgeable material. The chapter on treponemal diseases other than syphilis attempts to discuss the inter-relationships of their causative organisms, but the discussion is so abbreviated that little of value results. It is a difficult question, about which expert treponematologists differ, and no conclusion is yet possible but fuller treatment of the subject would have helped. Lastly, while generally emotional judgment of patients is avoided and while the importance of sympathetic handling is stressed, occasionally there is invective against the type of person who contracts venereal disease. It seems to this reviewer particularly unfortunate that these diseases can brand a person's character unlike other diseases can. One is naturally free to condemn promiscuity but in a medical textbook should appear only the *medical* consequences of such behaviour. In any case if these are no deterrent, moral exhortations are unlikely to succeed and are certainly out of place. These are small faults in an otherwise excellent and thorough book.

A.P.J.

BOOKS RECEIVED

Oakes' Pocket Medical Dictionary — 9th ed. Nancy Roper. Livingstone 8s. 6d.

Sex and the Love Life. William J. Fielding. Permabooks. 3s. 6d.

Nurse's Dictionary. Barbara F. Cape. Baillière, Tindall and Cox. 7s. 6d.

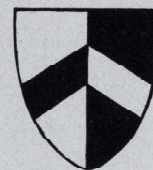
Aids to Forensic Pharmacy. H. W. Fowler. Baillière, Tindall and Cox. 12s. 6d.

A Radiographic Index. Myer Goldman, Ronald Lombard Kelly. Permabooks. 3s 6d.

Common Nervous Disorders. F. R. C. Casson. S. Miller and David Cope. John Wright and Sons. 13s. 6d.

Sexual Feeling in Married Men and Women. Foyles. 4s.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL



Vol. LXV, No. 10

OCTOBER 1961

Editorial

SOME YEARS AGO an American said that during the course of the previous ten years no country had produced so many wise reports on the improvement of medical education as Great Britain, and no country had done so little about it. The present generation of British medical students could hardly be accused of cynicism if they concurred with this view. From the student's standpoint there has been very little to show for the efforts of two world conferences on medical education and a welter of study groups with all the consequent literature. This, of course, is only one instance of an affliction all too prevalent in this country at the present time. It must be a trifle discouraging for all those eminent men who spend an enormous amount of time and energy preparing a report on some matter for no action to be taken upon their advice. This applies not only to reports on medical education but also to a number of Royal Commissions and a whole host of other special investigations into subjects as diverse as the railways and the homosexuality laws.

It has long been admitted that the medical student's curriculum is both grossly overcrowded and, in many places, out of date. It seems generally recognised that the preclinical course requires a good deal of pruning and re-orientation with increasing integration of the subjects. It is also appreciated that the clinical course should primarily be an apprenticeship in the art of medicine rather than the fact-piling, exam-cramming marathon which it is at present.

The first tentative steps have been taken, notably at Oxford in the reorganisation of some of the examinations there, but effective progress is smothered by the weight of vested interests. Surely the time has come for the General Medical Council to authorise a major experiment in at least one of this country's medical schools. It will be a bitter pill, however, for the ancient universities and teaching hospitals to have to take when they are instructed to reorganise their medical curriculum to fall into line with the recommendations of some still possibly embryonic provincial university.

Engagements

GAU—GREEN.—The engagement is announced between Dr. Donald William Gau and Gillian Sarah Green.

SAVAGE—CUPITT.—The engagement is announced between Dr. Denis Christopher L. Savage and Ann Cupitt.

Marriages

RICHARDS—WHITE.—On August 26th, Dr. Hugh Morgan Richards to Christine Mary White.

WALLER—BRODRIBB.—On August 19th, James Otway de Warrenne Waller to Anne Sylvia Brodrigg.

Births

BELL.—On August 22nd, in Toronto, to Daphne (née Long), wife of Dr. Thomas Bell, the gift of a son.

GRANT.—On August 21st, to Maureen, wife of Dr. R. N. R. Grant, a sister for Adrian, Fiona and Simon.

HARTILL.—On September 5th, to Eve (née Wallace) and Dr. Geoffrey Hartill, a daughter.

Deaths

BARBER.—On August 26th, Dr. Alec Barber. Qualified 1906.

Calendar

OCTOBER

Thur. 12—Abernethian Society. Great Hall. Inaugural Address. M. W. Perrin, Esq., C.B.E. "From the Ivory Tower to the Market Place"—The relationship between Science and Technology.

Tues. 17—Christian Union Meeting.
Dr. D. M. Lloyd-Jones,
M.D., M.R.C.P.
"The Battle for the Mind"

Sat. 21—On Duty: Dr. G. W. Hayward
Mr. A. W. Badenoch
Mr. R. W. Ballantine

Thur. 26 Abernethian Society. Charterhouse. Symposium: Degenerative Arterial Disease.

Sat. 28—On Duty: Dr. A. W. Spence
Mr. E. G. Tuckwell
Mr. T. B. Boulton

NOVEMBER

Sat. 4—On Duty: Medical and Surgical Units
Mr. G. H. Ellis

BROWNLEES.—On July 23rd, Thomas John Kilpatrick Brownlees, M.R.C.S., L.R.C.P., D.P.M.S. aged 53. Qualified 1933.

Appointments

On the invitation of the President of Ghana, Sir Selwyn Selwyn-Clarke will be visiting that country in October and November. He is to review the problems that may arise in carrying out the health programme and to offer constructive criticisms.

Royal College of Physicians
A. H. T. Robb-Smith has been appointed Fitz-Patrick lecturer for 1963.

Royal College of Surgeons
Mr. Norman Capener has been elected a member of the Council of the Royal College of Surgeons.

University of London
Dr. J. P. Quilliam, reader in pharmacology at St. Bartholomew's Hospital Medical College, has been appointed to the chair of pharmacology at the college.

Change of Address

Dr. and Mrs. D. A. Briggs, Puckhams, Stoke Abbott, Beaminster, Dorset. Broadwindsor 335.

Mr. J. Potter, 47, Park Town, Oxford. Oxford 5787. Professional Address: Department of Neurosurgery, Radcliffe Infirmary, Oxford.

Thur. 9—Abernethian Society. Charterhouse. J. W. Parr, Esq., M.A. "Delinquency and Hot Air."

Sat. 11—On Duty: Dr. R. Bodley Scott
Mr. A. H. Hunt
Mr. F. T. Evans

Sat. 18—On Duty: Dr. E. R. Cullinan
Mr. C. Naunton
Morgan
Mr. R. A. Bowen

Wessex Rahere Club

The autumn dinner of the above club will take place on October 28th, 1961, at the Lansdown Grove Hotel, Bath under the chairmanship of Dr. Pascoe Hill, of Bristol. It is hoped that the Guest of Honour will be Professor Michael Boyd. Further details will be circulated or can be obtained by any Bart's graduates, who are not already members, from the Hon. Secretary, Mr. A. Daunt Bateman, of 11, The Circus, Bath.

UNIVERSITY OF OXFORD 2nd B. M. EXAMINATION TRINITY TERM, 1961

Pass

J. C. Stephan.

Supplementary Pass List

General Pathology and Bacteriology

D. M. Myers.

Medicine

A. C. Warr.

Surgery

A. C. Warr.

UNIVERSITY OF CAMBRIDGE FINAL M. B. EXAMINATION EASTER TERM, 1961

Pass

A. N. Fawcett, A. E. Jephcott, J. R. Marlar, J. P. A. Page, W. S. Shand, D. Garduer-Medwin, A. P. Joseph, A. J. B. Missen, J. E. L. Sales, P. J. Watkins, D. W. Gau, R. K. Mackenzie Ross, D. H. Orrell, G. L. Scott, A. J. Gordon.

Supplementary Pass List

Part I. Pathology and Pharmacology

A. D. Holt-Wilson, B. J. Stoodley.

Part II. Medicine

R. S. Deraniyagala, K. E. Gray, W. J. Jory.

Part II. Surgery

W. J. Dale, W. J. Jory, K. E. Gray, B. J. Stoodley, J. K. Hamilton.

Part II. Midwifery

J. W. Dale, R. S. Deraniyagala, W. J. Jory.

CONJOINT BOARD FINAL EXAMINATION JULY, 1961

Pathology

R. N. W. Price, G. W. T. Renn, E. J. Banky, P. W. A. Mansell, P. I. Adnitt, P. B. Christian.

Medicine

R. N. W. Price, D. I. Prosser, A. P. Joseph, F. I. Amponsah, E. J. Banky, W. J. Jory, A. D. Holt-Wilson, W. S. Shand, V. M. Jones, P. B. Christian.

Surgery

B. W. E. Hare, F. I. Amponsah, D. M. Welch, B. E. Stone, P. B. Christian.

Midwifery

L. J. Collier, J. K. Brown, P. B. Christian.

The following have completed the examination for the Diplomas M.R.C.S., L.R.C.P.
P. B. Christian, F. I. Amponsah, B. E. Stone.

SOCIETY OF APOTHECARIES FINAL EXAMINATION JULY, 1961

Supplementary Pass List

Pathology

M. D. Brown, P. W. A. Mansell.

Medicine

M. D. Brown.

Midwifery

M. D. Brown.

UNIVERSITY OF LONDON SPECIAL FIRST EXAMINATION FOR MEDICAL DEGREES JUNE, 1961

Pass

C. M. Alexander, G. J. Kelly, F. E. McCarthy, S. J. Phillips, D. T. H. Williams*, A. M. Burgess, M. S. Lippedge, J. Pemberton, B. L. Sannes, P. B. Wilson, N. E. M. Harker, N. D. L. Loughnan, P. Pennington, J. R. H. Sutcliff.

The following General Certificate of Education Candidates have qualified for exemption from the First Medical:—

A. E. B. Bradbury, I. A. Hamilton Smith*, J. M. Woo-Sam*, R. A. Choonoo*, C. M. S. Rendall, H. M. O. Claydon*, E. M. Webb.

* Dental Students

SPECIAL SECOND EXAMINATION FOR MEDICAL DEGREES JULY, 1961

Pass

B. I. Anderson, A. A. C. Danesh-Haeri, S. G. Harris, P. R. Husband, J. Lloyd-Williams, G. M. Percival, E. E. Robb, W. A. Brooks, M. W. Fletcher, T. J. Herbert, A. S. Laburn, P. J. Milla, J. M. Pitt, J. C. R. Tompkins, E. A. F. Clements, W. T. George, A. L. Houghton, J. F. A. Langley, J. M. V. Nicoll, J. F. Ratcliffe.

UNIVERSITY OF LONDON FACULTY OF MEDICINE SECOND EXAMINATION IN DENTAL SURGERY JULY, 1961

Pass

A. Basharatulla, G. A. B. Blair, L. R. Collins, I. de C. Edlin, M. L. James, I. A. Killpack, A. R. C. Pack, G. E. Rich, J. F. Beal, J. D. O. Cantor, M. T. Croad, A. M.

Glen, O. D. Jones, J. M. King, P. Payne, S. F. Sapp, T. Beedham, C. R. Catterick, J. V. Davies, C. F. Invest, J. Kelly, E. A. Oehlers, P. L. Quenct, B. M. Smith.

ROYAL COLLEGE OF SURGEONS

The following candidates were successful in the Primary Fellowship Examination of the Faculty of Anaesthetists in June, 1961:—

M. Evans, M. E. Fielding.

Subject to the approval of the Council of the R.C.S. the following candidates at the examination held in July, 1961, are entitled to the Diploma of Fellow in the Faculty of Anaesthetists:—

M. M. Voysey, D. A. Nightingale, R. A. Jepson, B. le G. Waldron, G. B. Gillett.

UNIVERSITY OF LONDON

M.D. DEGREE
JUNE, 1961

F. Post.

M.Sc. DEGREE
(Physics)
JUNE, 1961

C. G. Orton.

Ph.D. EXAMINATION
(Faculty of Medicine)
MAY, 1961

D. M. Shaw.

Ph.D. EXAMINATION
(Faculty of Science)
MAY, 1961

D. F. J. Mason.

Christmas Cards

Christmas cards, using the Fountain design on the *Journal* cover, will shortly be on sale, price 3d. each (3s. 6d. per dozen, post free). They will be available in the Library, the Students' Cloakrooms, the Nurses' Home, or by application to the Manager of the *Journal*.

Fifty years ago

"WE RELUCTANTLY REALISE our incapacity to explain sufficiently the glories of a medical life. We have only to assure our new friends that they have embarked upon a career of education which is inferior to none, far reaching in influence, an education which is education in the true sense of the word. Three years ago (1908), Mr. Rudyard Kipling made some poignant remarks in a way which perhaps no other than Mr. Kipling could have done.

"We cannot reproduce all of Mr. Kipling's address, but a few of the privileges of a doctor may be included as an indication of the power which is offered to a young man. On presentation, his visiting card will pass him through turbulent and riotous crowds unmolested. He shares only with monarchs the possibility of his explanation if he exceeds the speed limit in a motor car. If he flies a yellow flag over a dense centre of population it will turn into a desert; if he flies a red-cross flag over a desert it will turn into a centre of population to which men will crawl on hands and knees. He can stop a 20,000 ton liner with her mails in mid-ocean to perform an operation."

Part of an editorial address to welcome freshmen to the hospital.

The Bart's Golfing Society

The Society met on September 14th at the Addington Palace Golf Club.

The Milsom Rees Cup (singles under handicap Stableford scoring) was won by Dr. Crumbie with a score of 37. Dr. Anderson and Dr. Rushton both returned a score of 37, but the cup was decided on the scoring of the last three holes.

The Graham Trophy (singles without handicap Stableford scoring) was won for the second year by Dr. Rushton. The three sealed holes were jointly won by Dr. Anderson and Dr. Bevan Jones.

The next meeting of the Society will be held at the Berkshire Golf Club on June 13th, 1962.

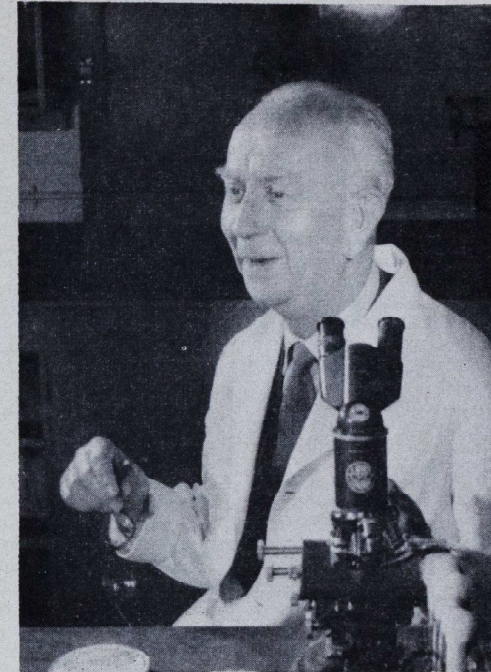
It is hoped that as many members as possible will attend this meeting.

J. O. Robinson,

Secretary.

149, Harley Street, W.1.

PROFESSOR L. P. GARROD



Photograph by Peter Crocker

IT IS HARD to realise that Professor Garrod retires from the Chair of Bacteriology at Bart's at the end of September. For many years Garrod has been well known as an authority on bacteriology both inside and outside the hospital. Inside the hospital, to Bart's men of many different vintages he has been a familiar figure both in the wards and in his laboratory. Every member of the staff at Bart's confronted with a difficult problem, which might perhaps have a bacteriological answer, must have derived great comfort from the knowledge that Garrod was there to be consulted. His opinion, often forcefully expressed, has always been worth having. To almost any problem in hospital bacteriology Garrod could be counted on to contribute a great deal from his own unique stores of clinical and laboratory experience. To students, too, Garrod has been an impressive

figure. Under a slightly disconcerting manner, difficult to describe but unmistakable, he has concealed a passionate love of his subject and great ability to put his knowledge across in an intelligible and useful way. He has contributed much to the study of problems of cross-infection and hospital hygiene. Many of our present ideas in this field have been stimulated by some of Garrod's early work on streptococcal infections occurring in nose and throat wards in the days before chemotherapy.

Outside the hospital Garrod has established and maintained for many years a world-wide reputation. He has contributed much to international meetings, and his work is particularly well-known in America. Garrod has always been intensely interested in the mode of action of antibiotics. Here, too, he has maintained an essentially pragmatic and realistic approach,

combined with great literary skill in presenting his evidence. His experimental work has always shown accuracy in every detail and at the same time ability to grasp and attack the essentials of a problem and to resist the temptation to be side-tracked into irrelevancies. He has contributed numerous papers to scientific societies and journals, and is well known as an author of books and of reviews. He is a recognized authority in many aspects of bacteriology—in sterilization and disinfection, actinomycosis, bacterial endocarditis, gas gangrene, urinary infections, food-poisoning and most of all in the mode of action of antibiotics, the clinical value of different combinations of these and of chemotherapeutic drugs, and in the accuracy, reproducibility and significance of antibiotic sensitivity tests. He has been greatly helped by his natural gifts in putting forward his views at meetings forcefully, and yet reasonably, clearly and with inescapable logic. In the written word he is a master of expression; his characteristic style can be recognized even in those anonymous contributions which appear from time to time in editorials and annotations.

Garrod's retirement from Bart's marks the end of an epoch. For that reason it is a sad occasion. All who know him and know what he stood for will wish Professor Shooter every success when he takes over his Chair, and will have every confidence that, though the mixture may not be quite the same as before, it will still be composed of the best ingredients which will give to bacteriology at Bart's a new and distinctive flavour of its own. R.K.

I FIND IT difficult to imagine Bart's without Garrod. Some 38 years ago I clerked on the same firm to which he was chief assistant—Morley Fletcher's firm. Apart from occasionally visiting L.P.G.'s laboratory to have nasal staphs typed I haven't set foot in Bart's since 1927, and so for me our Alma Mater (medical) and he are one and indivisible.

At first sight he appeared to the student in search of truth a little forbidding; but this aspect of the man, one soon concluded, was a sort of after-glow of King's College, Cambridge. And the slightly sardonic conclusion to a lucid sentence merged into a smile that made one realise that he was, after all, human! The public face, so to say, concealed a warm friendliness that has, I am sure, endeared him to generations of medical students. He was not someone who found in the laboratory a

shelter from the rude blasts of reality. L.P.G. was interested in patients and in clinical work. At least that's my memory of him. He seemed as content to be in the ward as at the right end of the microscope.

One of the patients for whom as a clerk I was responsible had subacute bacterial endocarditis, and the appropriate streptococcus was cultured from his blood. Those were the days, if I recall rightly, of immuno-transfusion, and I willingly agreed to act as co-guinea pig with the unfortunate patient. L.P.G. gave me an heroic vaccine of the patient's streptococcus in an attempt to provoke the formation of antibodies that might help him. Of this I remember two things. One was Garrod's remarking to me that Horder—whose name will always be associated with subacute bacterial endocarditis—thought he had given me far too big a dose. The other was that soon after the unfortunate patient had received a pint of my immunized blood his liver descended some three to four finger-breadths into the pelvis and in a day or two he was dead. The relatives refused a postmortem.

After the Wall Street crash of 1929, or thereabouts, had driven me out of a Harley Street address into Tavistock Square, I had over the years to seek out men with good minds and fluent pens to make the *B.M.J.* if not brighter at least better than it had been. And one of the first I turned to was the man who had taught me clinical pathology and bacteriology. ("I suppose you *can* recognise staphs when you see them," he said, as I was looking down the microscope.) That must have been more than a quarter of a century ago—and that sounds much longer than a mere 25 years.

It is difficult to say just how much we on the staff of the *B.M.J.*—and its readers—owe to Garrod. He has written book reviews, leading articles, annotations, answers to questions, all with effortless ease, precision of style, accuracy of fact, and a certain naked honesty that has been vastly refreshing.

All this work has been anonymous. We follow the example of *The Times* by preserving the anonymity of our leader-writers. But on this *festschrift* occasion I think I should let other Bart's men know what L.P.G. has done for medicine in this particular way. To use the printer's phrase, "You can follow his copy out of the window." The editorial blue pencil doesn't do much more to his copy other than indicate the size of type the article has to be set in, and such other minutiae. There is one

characteristic of Garrod's editorial writing: his attachment to the colon as a punctuation mark. One looks at a series of colons and turns some of them into semi-colons and some into full stops. Having done that one usually ends up by restoring the colons. I have come to the conclusion that L.P.G.'s use of the colon is rather like the "therefore" of a problem in Euclid which ends with the familiar finality, Q.E.D.

It goes without saying that Garrod has a remarkable knowledge of the literature of chemotherapy, and he reads French and German as easily as he reads American.

All this is added to a mastery of English. It

is a joy to watch his sharply critical mind in action, especially in refereeing a paper. This sort of comment is helpful: "I have counted no fewer than 15 spelling mistakes in four sheets of typescript. If a man can be as careless as this in writing he is probably just as careless in the work he is recording."

And so as Editor of the *B.M.J.* I have a very special reason for saying Hail and Farewell to someone who has continued teaching me, to my great benefit, now for nearly 40 years, and has read this beneficent guidance to those who read the *B.M.J.* in the four corners of the world. H.A.C.

CLINICAL BACTERIOLOGY

The substance of a "Last Lecture" given June 27th 1961

by L. P. Garrod

ALTHOUGH I HAVE occupied a Chair of Bacteriology for nearly a quarter of a century, I sometimes doubt whether I have any right to be so entitled. Pure bacteriology is a science with a language of its own which I hesitate even to speak, and medical bacteriology is only one of about eight of its practical applications. Clinical bacteriology is only one part of medical—that part which is mainly concerned with diagnosis. I have chosen it as a subject because there is a tradition in our department, going back to the time of Sir Frederick Andrewes, of examining specimens more thoroughly than is the practice in many other laboratories. This was easier in the past when specimens were far fewer and accepted only when signed for by a member of the Visiting Staff, but we still do our best with at least the more promising items in the avalanche of exudates and excreta which now reaches the laboratory daily.

One may liken the examination of a specimen to the physical examination of a chest, which I hope still consists of inspection, palpation, percussion and auscultation. The full examination of some specimens should comprise even more items than this, but in many laboratories nothing more is done than to make a culture in what is believed to be an appropriate medium. This is as if the examination of a chest were confined to auscultation with the eyes shut, a proceeding which I think you

will agree may be inadequate. I hope to give you some indication of what may be overlooked if other methods are omitted.

Examination of a Bacteriological Specimen INSPECTION

The first item is, of course, the same as in an examination of the patient himself, and much may be learned from it. Indeed, to the experienced bacteriologist the diagnosis may be evident at a glance, and what he does afterwards is merely to confirm it. Examples are the rusty sputum of the early stages of lobar pneumonia and the "red currant jelly" in the stools of amoebic dysentery. I am not suggesting that everything can be seen with the naked eye, although I read once in an M.D. examination script that dysenteric stools should be passed into a black bed-pan, so that amoebae or their cysts can be distinguished more readily! If there is one examination which succeeds or fails at this very first stage it is that of actinomycotic pus. Unless the sulphur granules are distinguished and picked out for examination, films and cultures will show nothing and the diagnosis will be missed. They are often invisible unless the pus is rolled in a thin film round the inner wall of the tube. They probably cannot be seen at all if nothing but a swab is sent to the laboratory. Will surgeons please note that if there is enough pus to collect in a tube it should always be so collected, and pre-

ferably not by scooping, which grossly contaminates the outside of the tube?

SMELL

Olfactory inspection is less important than visual, but may help. Some reports on faeces begin by stating that the odour is offensive, and one clinical pathologist of bygone days remarked that he had never met a specimen of faeces which wasn't offensive. This was before the days of broad spectrum antibiotics, which can, in fact, abolish faecal odour completely. But odour may be highly significant in sputum or pus. It should have given a clue to the diagnosis in one of two cases of actinomycosis which even Bart's failed to diagnose until they came to post-mortem. This was a woman who first had appendicitis, then an abscess in the same region and finally enlargement of the liver. At her second operation a small collection of foul-smelling pus was found somewhere between the caecum and the Fallopian tube, and when the pathological clerk on the firm failed to find anything in the pus, it was concluded that this must have been "gonococcal peri-salpingitis". This could not have been true, because gonococcal pus is never foul-smelling: actinomycotic pus is. Most other foul smells in exudates are due to organisms of the genus *Bacteroides* and they are not all alike: an epicure might distinguish between them. I have noticed, for instance, that pus containing *Bacteroides fragilis* is reminiscent of the excreta of cats.

DIRECT MICROSCOPY

Only a few days ago a specimen of what appeared to be pus was sent to us from an operating theatre and was found to contain no pus cells at all, but only masses of cholesterol crystals. In fact the cavity which had been opened was not an abscess, but some kind of cyst. I know of a case—indeed we still have some of the material, kindly sent us by an ex-colleague—in which pus from an abscess in the thyroid contained hooklets: it was, in fact, a suppurating hydatid cyst. Sputum is not often examined in this way, but if it is, it will show elastic fibres in active tuberculosis, Charcot-Leyden crystals in a certain type of asthma, and such interesting rarities as asbestos bodies. Some laboratories do and some do not, make a regular practice of examining faeces microscopically. Of course, this must be done to diagnose amoebic dysentery or parasitic infestation, but if neither of these is suspected, is it still worth doing? Certainly in any persistent diarrhoea, because this is often due, not to any bacterial infection but to the

protozoan *Giardia*, the cysts of which will be numerous in any such case. An unsuspected parasitic infestation sometimes comes to light. Two deaf-mute brothers had been Sonne dysentery carriers for over a year, and excluded consequently from the special school where they needed education. When they were admitted to this hospital, the first thing we found was that they were both heavily infested with whipworms, and I have little doubt myself the minute lesions caused by this parasite in the colonic mucosa were the site of multiplication of their dysentery bacilli and the cause of the long persistence of the carrier state. Their stools had been cultivated on innumerable occasions in other laboratories, but no one had taken the trouble to examine them microscopically.

GRAM FILM

There are two special indications for reliance on films in bacteriological diagnosis. One arises when the organism is not readily cultivable, as in Vincent's infection, or indeed in syphilis. The second is urgency—the diagnosis of gas gangrene cannot wait for cultures: admittedly it must be mainly clinical, but the laboratory may help by showing that the material from the wound contains large numbers of a single morphological type of *Clostridium*, perhaps clearly capsulated if it is *Cl. welchii*, and actively multiplying (i.e. not sporulating). The diagnosis of anthrax, although usually less urgent, can be verified in the same way. A new kind of emergency, because it seems to have resulted from broad spectrum antibiotic treatment, is acute staphylococcal enterocolitis: a Gram film of the faeces will establish this diagnosis immediately in a fully developed case, although whether we can detect the earlier stages of its development I am not sure. It goes without saying that gonococcal ophthalmia in the newborn can and must be diagnosed from a film in order to start treatment at once. I also believe that useful guidance for the initial treatment of pneumonia can be gained from a simple film of the sputum. If it shows pneumococci, well and good: almost any form of chemotherapy will deal with it. If it shows staphylococci or Friedlander's bacillus it will be necessary to choose an appropriate antibiotic much more carefully.

These are all special examples, but the thesis I am putting forward is that a Gram film should be prepared from all specimens, at least of pus, sputum or urine, preferably before a culture is made. Findings in this film may suggest the use of special culture media or the

necessity for anaerobic culture: they are also a guide to whether the inoculum shall be light or heavy. Finally they are an indispensable check on the results of cultivation: the two should correspond, and if they do not, there is something wrong. People who omit to do this save themselves a lot of trouble, but they must miss a good deal too. I do not say that what they miss is always important. We once found large numbers of yeasts in the peritoneal fluid from a case of perforated peptic ulcer. I am unfamiliar with *Candida (Monilia) albicans* as a cause of peritonitis, but the explanation proved to be much more innocent than this. The patient had sought to relieve the pain of his perforation with a bottle of ginger beer, and what we had seen were the yeast cells in this!

ZIEHL-NEELSEN FILM

It is a crime to omit this from any examination of sputum, whatever the clinical diagnosis. It may yield unexpected results from other kinds of material, and should be carried out whenever the nature of the infection is obscure.

CYTOLOGICAL STAINING

I have been maintaining for over 35 years that the sputum of patients described as having asthma is of two kinds. Either it contains polynuclear cells and pathogenic bacteria, and is thus apparently infective in nature, or it contains eosinophiles and no pathogenic bacteria (a properly made culture may be actually sterile) and is thus presumably non-infective. Although this distinction should be obvious to any careful laboratory worker, no reference is made to it in a well known work on "Allergy". The fact that what appears to be mucopus in sputum may in fact contain not polynuclear cells but eosinophiles has recently been rediscovered at the Brompton Hospital. A Leishman film is a necessary part of the examination of sputum from a case of asthma. In any bacteriological examination, of course, cells may be seen which are suspected of being malignant. We recently received a swab from an ulcer of the neck, bearing what appeared to be pus, but proved microscopically to consist mainly of masses of epithelial cells: needless to say, this was an ulcerating growth.

CULTIVATION

Most cultures are made on plates, and their success can be promoted in three sometimes neglected ways:—

1. Choice of the right inoculum from a heterogeneous specimen; this is particularly important with sputum, which inevitably con-

tains secretion from the mouth and pharynx, which has a quite different flora from that of the bronchial secretion itself. A piece of what appears to be the latter should be thoroughly washed in saline to disperse adherent salivary bacteria.

2. Adjustment of the size of the inoculum. This should depend on what has been seen in the Gram film, i.e., whether bacteria are numerous or few.

3. Thorough and uniform spreading. We maintain in our department that this is impossible with a wire loop, although most laboratories use this. The bent glass rod spreader is the only means of ensuring uniform distribution, particularly of mucoid and other coherent material.

By this means an experienced worker can obtain a culture of the bacteria which matter in a specimen, with neither too many nor few colonies, well separated so that they can be seen individually, and if necessary picked off with the certainty of obtaining a pure culture.

Antibiotics in Diagnostic Bacteriology

I make no apology for bringing the subject of antibiotics into this lecture. The fact that they have been my main interest for 18 years is perhaps not enough reason for this but the importance they have assumed in clinical bacteriology most certainly is. Is any member of the clinical staff signing a request card bearing the word "culture" capable of refraining from adding "and sensitivities", even in relation to the most trivial infection?

The best way of testing the sensitivity of an organism to an antibiotic is, of course, with a pure culture, whether by a dilution method using a series of tubes or by diffusion in a plate. But this means at least another day and more work and materials. The patient may be either dead or recovering before the answer is forthcoming, and the extra amount of work involved is such that to do all sensitivity tests with pure cultures would be utterly impracticable in such a laboratory as ours. The alternative is to incorporate the sensitivity test in the primary culture, having discs or cups in part of the plate from which the antibiotic diffuses. If only two are used, more than half the plate is available for normal growth: if more, a second plate may be necessary.

This method has been criticised as grossly inaccurate and only to be resorted to in emergency. My answer to that is that most acute infections such as pneumonia or meningitis are emergencies, and that in a properly inoculated



Fig 1

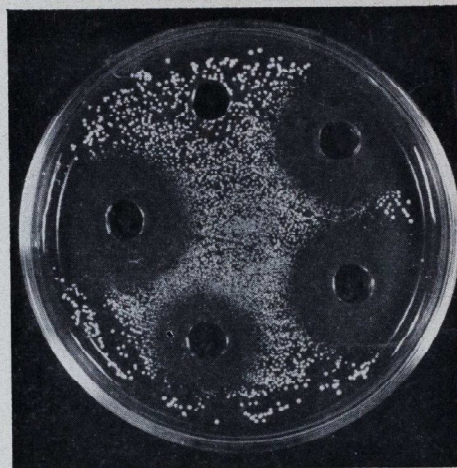


Fig 2

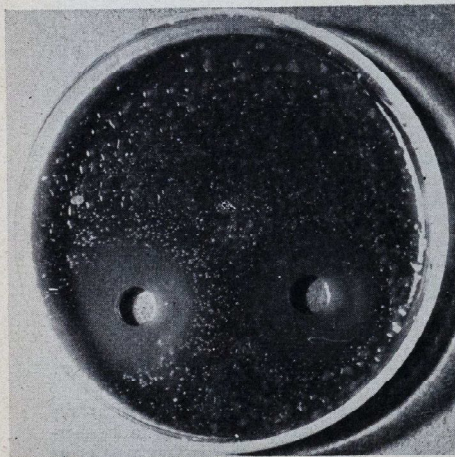


Fig 3

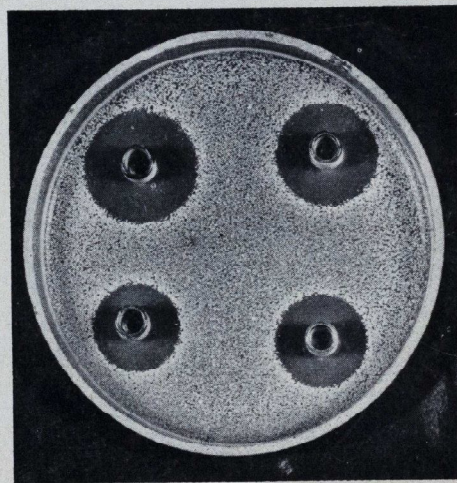


Fig 4

plate the sizes of the inhibition zones will differ little from those obtained in a test by the orthodox method with a pure culture. One of the variables which is said to invalidate this method is inoculum size and thus density of growth, which affects the apparent activity of some antibiotics, particularly streptomycin. Much that I have said about how to inoculate a plate is directed to producing an optimum number of colonies, uniformly distributed so that the width of a zone of inhibition can be clearly seen. Anyone who can make cultures like this can incorporate sensitivity tests in them without fear of falling into any serious error.

Another kind of investigation which may be necessary is estimation of the antibiotic content of a body fluid. There is a danger that this may be not high enough, as in the cerebrospinal fluid in meningitis, or too high, as when a potentially toxic antibiotic such as streptomycin is being given to a patient with impaired renal function. Either a dilution or a diffusion method may be used for this, with a highly sensitive organism and a control containing known concentrations of the antibiotic.

Finally, the clinical bacteriologist may be in a position to warn the clinician of unsuspected dangers attending the use of antibiotics. One of these, which has interested me for ten years past, is the establishment of a resistant streptococcal flora in the mouth during penicillin treatment. In a predisposed subject, dental extraction at such a time may result in an endo-

carditis which is highly resistant to the usual treatment. This means that, contrary to the usual belief, suspect teeth should not be extracted during a course of penicillin treatment, and that penicillin "cover" for extraction should be begun immediately before the operation, and not several days before, as in a famous case in this hospital in which this policy had disastrous results. I have recently completed a study of the mouth flora in patients undergoing treatment with penicillin which shows the constant presence of streptococci inhibited only by such concentrations as 2 or 4 units per ml, i.e., roughly 100 times greater than they should be. I mention this to illustrate the fact that the scope of clinical bacteriology need not be confined to the ordinary procedures of diagnosis. It has an increasingly important part to play in directing treatment and still offers endless opportunities to the laboratory worker with enough enterprise and leisure who maintains his interest in clinical medicine.

Correspondence

Dear Sir,

We were interested to read the article on pre-eclamptic toxæmia by Mr. G. B. Jackson in your *Journal* of August, 1961, but also surprised to find no reference, amongst the general outline of treatment or concerning individual cases, to the use of continuous epidural analgesia.

With pre-eclamptic or, frankly, eclamptic patients, with hypertension, an epidural catheter, using repeated doses of analgesic solution and with correct positioning, will inhibit sympathetic outflow, improve thereby renal function and reduce blood pressure. In established labour in the toxæmic patient, cervical dilation may be hastened, with earlier delivery, thus preventing a less traumatic passage for the foetus through a relaxed birth canal.

Epidural analgesia is also an invaluable method for cervical dystocia cases (Ball and Chambers, *B.M.J.*, 2.6.56). Sedation during labour, in those pre-eclamptic or eclamptic cases where continuous epidural analgesia is employed, may also be greatly reduced or even withheld, with consequent maternal and foetal benefit.

We are, etc.,

Harold C. J. Ball.

John S. W. Chambers.

DESCRIPTION OF PLATES

Figs. 1, 2 and 3 are primary cultures which were prepared with glass rod spreaders, and illustrate the uniform distribution of colonies which can be achieved in this way.

Figs. 1 and 2 are cultures of staphylococcal pus: in 1 there are only two cups containing antibiotic solutions, whereas in 2 five more have been included. The width of the inhibition zones differs little from that which might have been obtained had the test been performed by an exactly standardised method with a pure culture.

Fig. 3 is a primary culture of sputum, the growth consisting almost entirely of two organisms, *Kl. pneumoniae* (large irregularly shaped colonies) and *H. influenzae* (much smaller circular colonies). Their distribution is strikingly uniform, despite the tenacious character of the inoculum. The cups contain penicillin (left) and tetracycline (right). This strain of the first-named organism is unusually sensitive to penicillin.

Fig. 4. A plate culture inoculated by "flooding". This is only possible if a pure culture is available, and ensures even more uniform distribution, particularly of a large inoculum.

FROM CHICAGO TO BART'S

by Thomas Pappadis

I WAS VERY FORTUNATE to have spent a 3-month selective medical clerkship at Bart's as a culmination of my studies at Northwestern University, Chicago. I was recently asked to write my opinions of the medical education at Bart's and to compare this programme with the course of study I had just completed in Chicago. My experiences at Bart's were quite limited and therefore my impressions may be extremely superficial; nonetheless I will attempt to formulate my impressions and state them as best I can.

Having spent two and a half months with a medical firm, I was well indoctrinated to an excellent combination of good medical teaching and a relaxed countryside manner. I found that within a very short time, I had adjusted to an easy going working schedule and was still accomplishing a good amount of work, but in a way devoid of competitive pressure and high-powered pace sometimes characteristic of my country. In fact, I was considered quite peculiar by sister, the nurses and the houseman when, on the first day, I appeared on the wards at 8 a.m. and asked to make complete rounds. I was informed that, as a student, you just don't appear on the ward until at least 10 a.m. and are expected to have completed your rounds before 3 p.m.

In looking back on these three months, it is difficult to find criticism with your system of medical education, for on the whole I was quite pleased with my clerkship and was exposed to many informative lectures and ward rounds. Our ward rounds were generally quite good and my special thanks to Dr. Silverstone, who filled in on numerous occasions with active and informative teaching. From my own experiences as a student at Northwestern, I feel that one can learn from the Registrar and even from the houseman, not substituting for consultants on scheduled grand rounds, but rather in daily informal discussion concerning diagnosis and treatment of the patient for whom the student is responsible. I think that if house officers are willing to teach and spend some time each day with students, not only will this be beneficial for the student but also for the house officer, for by being required to teach he is provided with a stimulus to keep up his own medical education. It is along these lines that I find criticism with your medical education,

for I'm sorry to say that there was no real daily teaching contact with house officers and no real opportunity for the student to participate in discussions of the management of his patients. I realise that there are certain factors which hinder this type of teaching, but the problems of too many students, housemen being too busy, and too small patient load are certainly not insurmountable. Minimal changes would have to be made, but the end result would be well worth the effort. First of all in order to lessen the work load of the house officers and give them more time for informal teaching and working *with* students, I feel that an additional houseman on Colston-Rahere ward would have been advantageous. In this way four students could have been assigned to each of the three housemen. Once this were done, the student would clerk assigned patients under the responsibility of the houseman and, each morning, early rounds could be made with registrar, houseman, and four students during which the student would be required to plan management of the patient and be free to ask questions concerning diagnosis and management by the staff.

I realise that this may prove to be an intellectual burden on many housemen, but if the goal of medical education is to train good doctors and we realise that medicine is a learning process throughout one's life not terminating at certain qualifying examinations, then it seems that members of the staff should work as a team learning each day from one another and that the student should be considered as part of this team. In this way a true stimulus is given to the student to learn medicine rather than that of passing an examination. If students and housemen approached this scheme with enthusiasm, I am sure it would be the most beneficial teaching at Bart's. The experience with most of the students at Northwestern is in accord with this method and we have been taught from the beginning of our clinical years, to work closely with the intern and resident for it is from them that we will learn most of our medicine. If daily participation in asking and answering questions concerning management of patients can become the student's stimulus to read rather than the qualifying examination, a proper attitude toward the attainment of medical knowledge can be

more readily developed. I realise that examinations are a necessary evil and we certainly have our share of them, but I am certain the pendulum has not swung nearly as far in America as it has in England for I must admit that I was surprised at the extreme focus of thought on the passing of examinations held not only by the students but also by the professors in their lectures and discussions. It seemed that the significance of a particular medical fact was determined by whether it would be asked in the examination. If a mind is so conditioned for medical curiosity, it would seem absurd for a doctor, who no longer was faced with examinations, to bother reading the medical literature. The de-emphasis of examinations should be sought for and probably could be attained by closer daily contact with student by his registrar and detailed evaluation of each student by his registrar that would weigh as heavily as his qualifying examinations. The expectation of house officers is so ingrained at Northwestern that at many hospitals we students were asked to evaluate each resident and his teaching in an unsigned enquiry and if a particular resident did not have concern for medical education he could very likely be out of a job.

The only other programme I missed while at Bart's was the Clinico-Pathological Conference which is considered by many to be one of the most important events at any teaching hospital. Apparently the C.P.C. was discontinued at Bart's, but I am sure that with a little effort it can easily return. I think Bart's is too fine a medical school not to have a C.P.C.

It is very difficult for me to compare medical education at Bart's with that in Chicago because in truth I found the study of medicine to be quite similar in both countries. However I can briefly outline the course of study of an American student.

In the States a student goes to University for three or four years during which time he obtains a liberal arts education while fulfilling the basic science requirements for medical school. Approximately 70 per cent of medical students complete four years at the University obtaining a Bachelor of Arts degree at the termination of their studies, the remaining 30 per cent enter medical school after three years. Acceptance to a medical school requires passing a national examination, the completion of the basic science courses, and adequate recommendation by the University faculty. The medical school consists of four years (two preclinical and two

clinical). During the preclinical years one studies Anatomy, Biochemistry, Histology, Physiology, Neuro-anatomy, Embryology and Human behaviour in the first year. During the second year one studies Pathology, Bacteriology, Pharmacology, Clinical Pathology, Physical diagnosis, and survey of Disease. Upon completion of these years, the student begins his clinical years in Medicine, Surgery, Gynaecology, Pediatrics, Neuropsychiatry, Subspecialties, and out-patient clinics. The students rotate through five hospitals during that time in small groups of approximately 8 and where seminars are conducted for the particular clerkship. During the senior year we are given an elective quarter of three months during which time a student can do extra work in one of the clinical clerkships, do research in a special project of his own, or may go abroad and do a clinical clerkship in an approved teaching hospital. One is graduated at the completion of his senior year, obtains his M.D., and begins a one-year internship which is either rotating or straight. To obtain licensure to practise medicine one either takes a state examination at the completion of his internship or takes the national boards which have three parts—one testing pre-clinical work, the other testing clinical knowledge, and the third taken after internship testing practical application of clinical knowledge.

In discussing some of the teaching differences during the clinical years I can only speak for Northwestern which I believe is unique in many ways. Being affiliated with five hospitals, the school is able to rotate small groups of students through these various hospitals which affords the student much closer individual attention and appraisal. Another teaching programme at Northwestern is the clinics, where we for a three-month period in our senior year handle patients almost entirely ourselves. It was during these three months that I began to learn the problems of general practice. We ordered investigations and medications and followed the same patients as long as necessary. A group of four or six students were supervised by an attending physician, who would countersign our prescriptions and help us with any difficulties that would arise. Aside from these, I cannot list any other differences between Bart's and Northwestern.

On the whole I was very impressed with the high standard of teaching at Bart's. The ward rounds and most of the lectures were quite informative and the post-mortem presentations

were usually excellent. I was impressed, too, with the pathology department and must say that your museum is far superior to anything we have displayed and I consider it to be one of the outstanding features at Bart's.

I was also highly impressed with the calibre of nursing at Bart's. The sister of a ward is a unique and valuable tradition which I had not experienced before in the U.S. In fact, I feel that nursing as a profession has much more tradition, charm and respect than elsewhere. A nurse in uniform with her blue cape and wicker basket carries the true charm of nursing in England and one that impressed me greatly.

I can mention the new lecture theatres in the preclinical schools, college hall, the new wing and the new nurses' home highlighted by the Queen's visit, which I was fortunate to witness, and which became for me a memorable event, but I am sure you are well aware of these assets. All these are important, but the most important feature that makes me feel very fortunate to have attended Bart's is the contagious atmosphere of tradition and unity which engulfs one, even a stranger like myself, with a sense of pride in belonging to Bart's even for a short while. Thank you for your hospitality and an experience I shall never forget.

THE BEN NEVIS RACE

1961

FOUR STUDENTS FROM Bart's, two from St. Thomas's, and one each from Westminster and Charing Cross, arrived in Fort William by the morning of September 2nd. They were all very surprised that everyone had turned out for this "The world's toughest race". After a night or two of partial sleep under canvas and the sacrifice of 2ml of blood "for tests", all arrived at the start. The Pipe Band finished playing and a roll-call was taken because one of the 130 competitors was already missing. The race was finally started by the Provost, a large man with a gold chain around his neck.

For a ten-mile race, including a 4,406 ft. climb, the start was alarmingly fast and by the time the leaders reached the foot of the mountain the field was stretched out over about $\frac{1}{4}$ -mile. The course follows a path of boulders to half way up and then the individual may follow the zig-zag of the path or "proceed" straight up the mountain. Progress is maintained by alternate walking and running with frequent stumbling during both.

Near the summit cloud and rain intervened and it was difficult to ascertain one's position; as it became colder the leaders began to appear descending at high speed and shouting encouragement to their team-mates still on the way up. The descent was far harder because of the loose, uneven surface one had to run on.

Many people doing the race for the first time lost up to 30 or 40 places on the descent. When at last the road was reached again the effort to run was almost super-human—aches and pains appeared everywhere and there was a feeling of general weakness; some were able only to walk for a while and then to begin to jog gently down the little undulations cheered by the people lining the route.

At the finish one ran straight into the first aid tent and was given lemon barley water, salt and sugar; the local doctor also appeared, felt your pulse and muttered, "Um! pretty strong!" Then you were transported to changing rooms and given a high tea afterwards. Mr. M. B. Lee and Dr. A. Price obtained further specimens from the hospital competitors and saw that Foxton was admitted to hospital.

In the evening certificates were presented to all who had finished in under three and a half hours. In the team event Bart's came 5th out of 24 and the individual placings were:—

16th, P. Littlewood—1 hr. 57 min.; 34th, T. Foxton—2 hr. 9 min.; 48th, N. Pott—2 hr. 14 min.; and F. Hardy—2 hr. 36 min.

The results of the tests done on the specimens of blood and urine will be published later.
P.L.

CENTRAL GALLSTONE PAIN SIMULATING CARDIAC INFARCTION

by Geoffrey Bourne

IT IS NOT always recognised by surgeons, or even by physicians, that gallstone colic may be entirely central. This deviation from the normal position sometimes causes diagnostic errors, particularly cardiac ones, and this point is well-illustrated by the following two cases:—

Case 1. Mr. G. E. C., aged 54, an Englishman stationed in Germany, came for a cardiac opinion. The past history was clear until six years ago. His mother had died from a coronary attack. In 1955 he had pneumonia and a second attack of this in 1961. Heart trouble was suspected at the time of the first attack because of pain in the middle of his chest, which was not very acute and which lasted on and off for five or six days. The electrocardiogram was said to be equivocal.

The second attack was in February, 1961, when, following an acute catarrhal infection, he was seized one night at 9 p.m. with pain in the mid-back which increased in severity until it became nearly unbearable. It radiated forwards to the lower chest. Looking back upon it, he thinks that it varied in intensity while it was present. There was no radiation to the arms or to the neck, and after an injection, presumably of morphia, he went to sleep, and on the next day had no more pain. There was, however, slight discomfort which he has noticed on and off since. There was no constriction or pressure with the pain, but it was like what he described as a hot piece of iron thrust into his chest. Previous to this he had taken exercise normally, playing thirty-six holes of golf twice at weekends, and walking without any sign of any anginal discomfort. Since the attack he has had no anginal pain coming on with exercise, nor has he at any time had any true shortness of breath.

I cross-questioned him about the effect of nitrites, which he took on July 23rd, when he had a slight return of pain which was not as bad as the first one. It was not until half an hour after taking glyceryl trinitrate that the pain went, so that there was no typical rapid relief of this pain by the drug.

On examination, he was overweight but looked healthy. The heart rate was 68 and the rhythm was regular. The blood pressure was

132/78. The heart sounds were normal. The lungs and abdominal organs were normal.

The electrocardiogram that I took showed no abnormality whatever, and in the previous tracings I could see no change that I regarded as diagnostic of coronary disease. Radiologically, on screening his chest, the heart was not enlarged, the transverse diameter being 14.4 cm. by orthodiagraph.

My opinion was that the attack was not a coronary one for various reasons. The transaminase was not raised above normal; there was no constriction with it and no typical radiation; and there had been no anginal symptom either before the attack or since.

My conclusion was, as I told him at the time, that the pain was not due to heart disease, but to gallstones. He thereupon revealed the fact that his daughter had had a cholecystectomy at the age of 20. The patient's barium swallow showed a normal oesophagus, but the cholecystogram showed a poorly functioning gall bladder containing gallstones.

Case 2. Mrs. M. G. G., aged 44, the wife of a doctor, was seen on March 24th 1949. Her father had died of a stroke, aged 57. Her mother had diabetes, and three brothers had died from cardiovascular troubles at the ages of 49, 52 and 55 respectively.

She was examined at the request of her husband, since local consultants had suspected coronary trouble. Shortly before I saw her, while walking about her home she was seized with sudden severe epigastric pain. She sat on the stairs, called for help, became shocked and was given morphia. Following this, five or six attacks recurred, all of them at the lower end of the sternum. The blood pressure fell during the first attack. There was no radiation of the pain. During one of the attacks she regurgitated unchanged food.

Physical examination revealed some degree of adiposity.

The heart rate was 86, the rhythm was regular. The blood pressure was 158/108. The heart was clinically normal, as were the lungs and abdominal organs. The electrocardiogram was normal in leads 1, 2, 3 and from V4 to V6 inclusive. Radiologically, the heart was normal

in size and in shape, indeed rather small, the transverse diameter measuring only 11.3 cm. by orthodiagraph.

I concluded that the pain was not cardiac or coronary in her case also. The oesophagus was investigated and was found to be normal, but the cholecystogram showed the presence of gallstones. A cholecystectomy was done and she has remained well since. The previous electrocardiograms done by the local consultant revealed no evidence of infarction, but coronary spasm was suspected.

Conclusions: As in so many clinical problems, the diagnosis is not difficult, provided the possibility is borne in mind. In both of the above cases the red herring in the shape of family history of cardiovascular disease was distracting. In both cases the pain was central and never occurred in the right upper abdomen. Each patient suffered from more than one severe attack. The pain in the first case was said to have been relieved by nitrites.

If the physician relies exclusively on instrumental aid, the diagnosis will eventually be made by a complete use of such methods. However, this is both time-consuming and expensive.

TEN YEARS IN SOUTH WEST TANGANYIKA

by Ursula M. Hay

"SOME ARE BORN GREAT, some achieve greatness, and some have greatness thrust upon them," said Shakespeare, and if the word "Surgery" is substituted for "greatness", I should come into the last group. I have always been nervous with the scalpel and when I was a resident I studiously avoided any opportunities offered for doing varicose veins or appendices. When I got to Africa I bitterly regretted my lack of experience. My first attempt to deal with a hernia failed. It was a large one and I could not dissect out the sac. The next time I tried, anaesthetic difficulties (the anaesthetic was open chloroform given by a nursing sister) persuaded me that discretion was the better part of valour, and I sewed up when I had only got through the external oblique. So many of the hernias in East and

A really careful history will provide a short-cut to the truth. In central gallstone pain, simulating coronary attacks, there is no history before or following the attacks of typical angina of effort, brought on by and proportional to walking or other such forms of exercise, nor is shortness of breath on exertion (except as a result of adiposity) present. There is no radiation of this pain to the neck or the arms, but it may well be transmitted through to the back.

A further important point is that, should there have been two or more really severe attacks lasting for hours, and requiring morphia, the complete absence of cardiac abnormalities clinically, in the electrocardiogram, or radiologically, will be practically exclusive of a coronary case.

Points to remember in the electrocardiogram are that minor T wave change, especially in lead 3 and aVL, can be ignored. Attention should be focussed upon the presence or absence of significant S-T depression or elevation, enlargement of the Q waves, and absence of R waves from V2 to V7 inclusive. Comparison between electrocardiograms taken at intervals of six months or longer may also provide useful evidence.

Central Africa, by the time they come to the operating theatre, are veritable footballs in the scrotum and are often well stuck to surrounding structures. But after my first two failures I referred the old men elsewhere until I had had some practice with younger patients with more manageable sacs. I also learnt to give spinal anaesthetics—a great boon when you are on your own. The heavy spinal, which depends for the level of anaesthesia on where the bubble of heavy solution lies in the CSF, is safer than the light, which depends for its level on the volume of fluid injected, and it is possible, with care, to regulate the level of the heavy bubble with nothing more than wooden blocks, or even a couple of bricks under the foot of the operating table. In this way I have given spinal anaesthesia for caesarean section, as have many doc-

tors working under similar conditions.

The commonest emergency in general surgery is strangulated hernia, but I have seen perhaps an average of rather less than one a year. For, although one has to be able to operate on emergencies, they are in fact not nearly so common as they are in this country. Appendicitis is rare in the African; peptic ulcer exists, but I have not had to deal with a perforation. Carcinoma is not common, so one does not see the intestinal obstruction one does at home. Traumatic surgery in up-country districts is not common, though fractured femurs are frequent in the mango season, in small boys. They appear to prefer the unripe fruit in the trees to the ripe fruit on the ground. Midwifery produces much the most worrying situations. Cases of placenta praevia arrive exsanguinated, and have a high mortality where there are no facilities for blood transfusion. Disproportion is common. This is due not to rickets but as small girls of eight or so carry their smaller brother or sister of one-and-a-half to two years, on their backs, this may, I think, contribute to the large number of prominent sacral promontories one feels on vaginal examination. Neglected cases are sometimes brought in late in labour, having been managed by old gamps in the village, whose main idea is to make the patients push from the onset of the first stage. The young primip then arrives exhausted and with a grossly swollen vulva having been in labour for anything from one to four days. Some tribes believe that delay in labour is due to unfaithfulness on the part of the husband. More likely the old women merely taunt the unfortunate patient with having "no strength" or even accuse her of killing her unborn child purposely, and beat her accordingly. Some deny food and even drink during labour. Others force a cloth into the patient's mouth, the idea being that it helps her to push more vigorously. But even in a well-managed labour delivery is not infrequently instrumental or by section. Hospitals with a resident medical officer are thin on the ground in Tanganyika, so that any doctor, particularly a Mission doctor, and more particularly a woman Mission doctor, tends to collect abnormal midwifery. The young primips are more likely to come for delivery than the older multipara. Others who have had a bad history with one, two, or even more still births, or difficult forceps extractions by a nursing sister who has been unable to obtain medical aid, want to be in a hospital with a doctor next time.

The ordinary routine work of the hospital tends to centre round babies and young children. Malaria is hyper-endemic and transmission takes place all the year round. When the parasite is constantly present in the body it takes about two years to acquire an immunity. Thus serious malaria is largely a condition of babies and they get an overt attack about once a month. If they remain untreated, their haemoglobin drops alarmingly. We try to combat this in the infant welfare clinic by insisting that every mother brings her baby's medicine bottle every week to be replenished with Mist. Ferr et Ammon. Cit. There is a kind of superstition associated with the weighing machine. Most mothers are perfectly happy provided their infant has been placed on the scales, few enquiring whether or not their baby has gained. (In fact, they worry little if their children do not grow, particularly after the weaning period when, owing to shortage of protein food, weight gain is slow in any case.) And it is quite a battle to get them to give iron and vitamin supplements, though the dried skim milk provided by UNICEF is popular.

Other conditions from which the African infant suffers are purulent conjunctivitis, upper respiratory infections, mild intestinal upsets and the exanthemata.

Besides hospitals with medical officers there are other units providing medical services; some small Mission hospitals with nursing sisters in charge, and some "dispensaries" run by trained Africans. The visiting and supervision of these forms an important part of any doctor's work, and often involves a night, or several nights away from home, under more or less camping conditions. This provides a break from ordinary routine, and is vitally necessary if standards in the smaller units are not to deteriorate too badly.

Medical services in Tanganyika are provided mostly either by Government (the Colonial Medical Service) or by the Missionary Societies. There are some private practitioners in the larger towns but these are mostly Asians and cater for the Asian community and richer Africans. When the country gets independence in December, Government medical services will be the responsibility of its own Ministry of Health and no longer that of the Colonial Office. Some of the doctors will be leaving but a number will stay, serving under contract with the new government. It is likely that Tanganyika will want ex-patriate medical officers for a very long time indeed.

Until after the end of the last war, Tanganyika was rather the Cinderella of the African Territories, and little money was put into either its development or its social services. In education it lagged far behind its neighbours. Now secondary education is being developed rapidly, but the country is not producing nearly as many young men as it needs to train as doctors and for other professions and for technical training. The number able to go to Makerere, the University College of East Africa, for medical training is nothing like sufficient to fill the need. It is not generally realised in England that after Independence many new countries, and Tanganyika particularly, not only urgently need doctors, graduates and men with technical training, but welcome them with open arms.

Tanganyika is not a trouble spot, so gets less into the news than its neighbours. The road towards independence has been travelled with unprecedented speed and the minimum of disturbance. For this there are a number of reasons. First the lack of European settlers. I do not wish to malign the settlers in other parts of East and Central Africa. They have given a very great deal in work and capital and without them the economy could not exist. But the Africans with whom they come in daily contact are their labourers, and though they know these well, they do not realise how advanced the educated African can be. They sincerely believe the Africans are not capable of governing and understandably fear the consequences of African majorities in Legislative Council. Their presence in the country is a tremendous economic advantage, but their voice

in politics delays the advance towards independence.

The second reason why Tanganyika has proceeded peacefully is that there is only one party, the Tanganyika African National Union, and though its leaders are young and not very experienced, there is a friendliness and team spirit among them which is almost unbelievable. The third reason is that in Mr. Julius Nyerere we have a Prime Minister of outstanding quality. A graduate in economics, he has had the courage to tell the people right from the start that Independence will not bring the millennium. For a couple of years now the cry and greeting of *Tanu* has been not only "Freedom" (as it is in so many of our neighbouring countries) but "Freedom and Work", and though there are a number of young men who prefer politics and idleness to work, the leaders have made it perfectly plain that economic development will only come by the sweat of the brow.

Perhaps I have painted too rosy a picture of Tanganyika. Of course, there are difficulties and disadvantages of working there in any capacity. But to anyone interested in clinical medicine with a difference, or who wants a responsible and demanding job; or to anyone who would like to widen his experience for a period, Tanganyika can offer a great deal.

The Mission for which I work is in urgent need of doctors. It has no one for its seven hospitals in Nyasaland. At present there is no one to take my place as I return to a different part of Tanganyika.

If anyone would like to know more, I should be very pleased to give any further information.

LAST MONTH

ON SEPTEMBER 20TH the Berwick-London train sped through the home counties in a late effort to make up half-an-hour's lost time. On the train I ran into Alastair Snodgrass. His younger brother, Antony, used to be at Bart's. He asked me if I was still there and then said:

"Of course, Antony was bored to tears, he left and became a bookmaker."

"Why?" I asked.

"Why what? Leave or lay odds?"

"Leave."

"Because he was bored I tell you."

"Why bored?"

"The lectures."

"The lectures! They're ideal; with the practicals they tell you everything."

"Precisely."

"Even a technical college could not hope to leave so little to the student."

"Exactly."

Alastair smiled and wandered off. He left his *Guardian* on the table and since, in Scotland, one tends to lose touch I read a long report headed "26,000 School Teachers To Strike."

A couple of months spent in the border lands of Scotland, a country which successfully lives almost a century in a contented feudal past, has just slightly shaken my faith in our God-Almighty welfare state. It seems that the disastrous effects of mollicoddling moronic masses have now spread from industry to the

teaching profession. One has learnt to tolerate Trade Unions for ever playing Twist—this they will go on doing until they choke themselves with the gruel spoon—but not the teachers. Have they no morals? For in a word their strike action, even token, is amoral as well as irresponsible. The doctor, the teacher and the priest are essential to a thriving society and must enter their professions with eyes open to poor financial returns, prepared to keep a stiff upper lip. It matters little whether they are underpaid, underfed and overworked or not. If the professions trade on their indispensability and descend to strike action, the rot has set in, the welfare woodworm has done its work.

BOOK REVIEW

A Brief History of the Hospital of St. Bartholomew by Gweneth Whitteridge, M.A., D.Phil., F.S.A. and Veronica Stokes, B.A. The Governors of the Hospital 1961. Pp. 68. 5s.


The recent visit of H.M. the Queen to the Hospital has had at least one very beneficial side-effect—the publication of a really satisfactory short *History of the Hospital*. The two obese and learned volumes published by Sir Norman Moore in 1918 are of permanent value, but are unwieldy and

expensive. Sir D'Arcy Power's *Short History of the Hospital*, published for the Octocentenary in 1923, has long been out of print. The small brochure designed chiefly for the use of visitors and patients is also out of print. The place of all these has now been more than adequately filled by this new and authoritative account of our ancient Foundation. The authors, being the Hospital Archivists, can be trusted to provide accurate information about any part of our long history, and they have risen to the present occasion by conveying their information in an admirably readable and interesting manner, even though their great knowledge has had to be confined within the compass of 60 pages of text. One of the particular objects which the Treasurer and Governors had in mind was to present a history giving not only an antiquarian study, but also bringing out the recent developments in all departments of the Hospital. The result is a well-balanced view of the Hospital history right up to the present moment. Rarely, if it may be said without irreverence, has been put in his place. The pious Founder is given his due, but so is the situation found in 1961, with a chapter devoted to the history of the Medical College as an integral part of the immense complex formed by a modern Teaching Hospital.

The book is excellently printed and splendidly illustrated with a great variety of views, plans, objects of interest, portraits and documents. Even those who may think themselves already familiar with the story will find that there is much of new interest in this balanced view of history. The book should be in the hands of every student and nurse working in the precincts.

G.L.K.



 **National
Provincial**

The St. Bartholomew's Hospital Office, which is opened for your especial use, is under the management of Mr. F. H. J. Mead, West Smithfield Branch, 59 West Smithfield, E.C.1, and enquiries will be welcomed.

SPORTS NEWS

Sports View

SEPTEMBER IS THE quiet month of the year, when a minimum of work is done and little or no sport is played. The cricket season finished in August, long after the professional football season started. The usurping of this month by the footballers has become a source of annoyance to the cricketers.

However, September is also a time of preparation for the Rugby team, a kind of Lent, entailing a severe reduction in more lazy extramural activities and the sacrifice of less cigarettes and aching limbs. The prospects appear good for this season with a large nucleus of last year's team in addition to "A" XV members who have matured. It is hoped that the enthusiasm and capacity for hard-training of last year's team will be attended by more success this season.

The Football and Hockey teams have so far been less active, but their prospects look fair, both again have many of last year's teams remaining.

Finally, let us not forget the ladies, hoping that they will win back the Hockey Cup, which everyone has come to think of belonging exclusively to them.

Cricket—Retrospect

With a final record of—

Played 34, Won 14, Drawn 10 and Lost 10 the Cricket Club enjoyed a moderately successful season. Examinations and midwifery denuded the side in July with a consequent run of defeats, but this was offset against a hundred

per cent record on tour. The Sussex tour, although somewhat quieter socially than of former years, was as usual full of incident and Rottingdean were beaten for the first time for several seasons. In the Hospitals Cup Bart's lost to Mary's after a replay, both sides being very evenly constituted and both exceeding 280 runs in each innings.

The batting extends deep into the order, so the tail would have it told, the most consistent run-getters being Warr, with his sweetly-timed drives and pulls, and Jeffreys, with his delicate flicks and glances. Further, Harvey, Delany and Merry were frequently major contributors to the total. The bowling lacked a really penetrative protagonist and thus Merry had to rely on several stock medium-paced bowlers whose task on the usually plumb Chislehurst wicket, so affectionately prepared, was seldom easy. Harvey and Niven contributed most overs, but Harrison, Stoodley and Davies all produced good spells. The advent of Warr as a swing bowler late in the season proved a further fillip to the rather ordinary attack. The fielding was always variable and the three dropped catches, which welcomed three accomplished Mary's batsmen to the crease, contributed in large measure to the Cup defeat.

Among the highlights of the season one remembers Delany's century against Mary's; Warr and Jeffreys's unbroken opening stand of 144 against Streatham Wands.; Davies's two incredible catches on tour, and Warr's 6 wickets for 9 runs spell of swinging full tosses at Barcombe, not to mention several innings, large and small by Jailler, whose demeanour and gamesmanship at the wicket made him the team's cricketing "Hancock".

AVERAGES—Batting

	Innings	Times Not Out	Highest Score	50s	Runs	Av.
R. V. Jeffreys	23	4	88	6	836	44.0
A. C. Warr	20	2	96*	6	708	39.3
J. A. Harvey	26	8	58*	5	595	33.1
B. J. Stoodley	12	3	55	1	268	29.8
D. J. Delany	20	1	122	4	561	29.5
J. D. Davies	15	0	74	3	385	25.7
J. M. Jailler	16	3	63*	1	270	20.8
R. T. G. Merry	30	4	50*	1	527	20.3

* not out

Bowling

	Overs	Maidens	Runs	Wickets	Av.
A. C. Warr	58.2	12	189	13	14.5
P. A. R. Niven	308.2	51	1,050	52	20.2
D. J. Delany	101.2	13	433	21	20.6
J. R. Harrison	164.2	34	515	23	22.4
J. D. Davies	121.3	23	421	17	24.8
J. A. Harvey	405	70	1,210	50	25.9
R. T. G. Merry	157.3	15	716	27	26.5
B. J. Stoodley	152.5	25	561	19	29.5

ST. BARTHOLOMEW'S
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Editorial

THE WORM is turning; no longer is general practice threatened with extinction. The doctor's surgery may become more and more like an out-patient clinic, his affiliations with the local hospital will, one hopes, become stronger and stronger, but he will, nevertheless, retain responsibility for a number of patients whom he will still be able to call his own. It is the turn of the hospitals to lament their failure to attract many newly qualified men of the calibre they require. The situation in the peripheral hospitals is dire already, but in a few more years it will be desperate unless specialist medicine in the junior grades is made a more attractive proposition.

There seems to be an increasing number of recently registered doctors, with at least two house jobs in their own teaching hospital behind them, who are turning their backs on hospital practice and "going to the country". There must be a variety of reasons for this. Marriage at an early age is ever becoming more acceptable and natural. Many are not prepared to subject their wives, and probable families, to the financial strain and to the

frustrations of many years of residential jobs and urban flat dwelling. Others have discovered that hospital mess life, whilst professionally stimulating, is hardly intellectually stimulating in the broader sense of the word. Of course, it is barely conceivable that the teaching hospitals will ever have any difficulty in attracting sufficient men of the top flight, but the other hospitals will be hard hit. It is here that the vicious circle of staff shortage will be most apparent. With more people deserting an increasingly intolerable load is placed on those remaining and yet more are driven away.

The health service is already facing an acute shortage of doctors in all branches of the profession. It seems extraordinary under the circumstances that there should be such opposition to the proposals in the Platt report of establishing posts for G.P.s in hospitals on a part time basis. Hospitals are understaffed and are relying to a large extent on overseas doctors. With so many well qualified men going into general practice, many with one or more additional qualifications and many, at times, nostalgic about academic medicine, there appears such a good case for adjusting supply to meet demand.

Engagements

- BORODA—TSCHAIKOV.**—The engagement is announced between Dr. Cyril Boroda and Miss Daphne Tschaiikov.
- GIBBON—ALEXANDER.**—The engagement is announced between Dr. Raymond H. Gibbon and Miss D. Ruth Alexander.
- HOBDAY—REID.**—The engagement is announced between Dr. George Radenhearst Hobday and Miss Sally G. Reid.
- SHARP—COLLINS.**—The engagement is announced between Guy Thomas Sharp and Miss Jillian Margaret Collins.

Marriages

- CUNNINGHAM—CORBETT.**—On 16th September, Dr. Geoffrey Allan Brockman Cunningham to Alison Mary MacRae Corbett.
- PERRING—BARNES.**—On 30th September, Michael Arthur Perring to Elizabeth Denalo Barnes.

Births

- AINLEY-WALKER.**—On 27th September, to Ann (née Mayer) and Dr. John Ainley-Walker, a son (Peter Ralph), a brother for Patricia and Richard.
- CRONIN.**—On 1st October, to Cora (née Mumby-Croft), wife of John Cronin, F.R.C.S., M.P., a son.
- DICKMAN.**—On 20th September, to Mollie (née Brownrigg) and Dr. Roy Dickman, a daughter.
- EVANS.**—On 8th October, to Drs. Nerys and Glyn Evans, a son (Gruffydd), brother for Shan.

Calendar

NOVEMBER

- Thur. 23—Abernethian Society. Charterhouse.
Prof. R. Llewelyn Davies, M.A., F.R.I.B.A., "Architecture as Human Environment in Sickness and in Health."
- Sat. 25—On Duty: Dr. G. W. Hayward
Mr. A. W. Badenoch
Mr. R. W. Ballentine

DECEMBER

- Sat. 2—On Duty: Dr. A. W. Spence
Mr. E. G. Tuckwell
Mr. T. B. Boulton
- Thur. 7—Abernethian Society. Charterhouse.
Prof. W. J. H. Butterfield, O.B.E., "Clinical Research in Diabetes".

- PEDERSEN.**—On 6th October, to Wendy (née Newbery) and Dr. David L. Pedersen, a daughter (Kate), sister for Lawrence and Sarah.
- SHOOTER.**—On 30th September, to Jean, wife of Dr. R. A. Shooter, a daughter.

Deaths

- ANDERSON.**—On 15th October, Dr. John Dudgeon Anderson, aged 53. Qualified 1937.
- BOUSFIELD.**—On 19th September, Dr. Stanley Bousfield, aged 90. Qualified 1897.

Appointments

Dr. P. Sleight, senior registrar at St. George's Hospital, London, has been awarded a Research Fellowship supported by the San Francisco's Heart Association and the Wellcome Foundation for a year's work at the Cardiovascular Research Institute, University of California.

Mr. John A. H. Bootes, who is president of the British Medical Students' Association, was recently elected president of the International Federation of Medical Student Associations at the General Assembly in Israel.

Change of Address

- DR & MRS. CLIVE CHARLTON,** 1, West Hill Court, Millfield Lane, Highgate, London, N.6. Fitzroy 1710.
- DR. & MRS. NOEL CHILTON,** 4, The Green, Uley, Glos. Uley 287.
- DR. E. C. O. JEWESBURY,** Professional address: 136, Harley Street, London, W.1. Welbeck 6200.

- Sat. 9—On Duty: Medical and Surgical Units
Mr. G. H. Ellis
- Sat. 16—On Duty: Dr. R. Bodley Scott
Mr. A. H. Hunt
Mr. F. I. Evans
- Sat. 23—On Duty: Dr. E. R. Cullinan
Mr. C. Naunton
Morgan
Mr. R. A. Bowen

Abernethian Society

The inaugural address for 1961 was given by Mr. M. W. Perrin, C.B.E., F.R.I.C., in the Great Hall on Thursday, 12th October. As treasurer of the Hospital and President of the Medical College, Mr. Perrin was a very welcome guest. His subject was "From the Ivory Tower to the Market Place—the Relationship between Science and Technology".

As the Chairman of the Wellcome Foundation, Mr. Perrin could obviously speak from experience. He talked in some detail about the development of Polythene (with which he had been closely connected). Then he developed

his idea about what the technologist was and also what was the future link which such a person must form between the Ivory Tower and the Market Place. When Mr. Perrin was able to demonstrate that in his view, most of us realised that our idea about the subject had been inadequate previously. However, it is rather pleasing to think of such an old profession as ours being taken as an example of present day needs.

In the questions which followed it became obvious that we must consider how modern university courses could best serve the needs of our society—and the part that Institutes of Technology ought to play. The need still seems to be for flexibility of courses and men who can themselves relate various disciplines.

Students' Union

No Students' Union report has appeared in the *Journal* for some months as the Council has not met during the preclinical holiday, but it is hoped that providing sufficient space is available a brief report of Students' Union affairs can be published following every meeting. In this way we feel that every member will be readily acquainted with the decisions made on their behalf and for what purpose their yearly subscription is used.

The most recent Council meeting was on Tuesday, 10th October, 1961, in the Small Abernethian Room. A short abstract of the proceedings follows.

At the request of several students a letter had been sent to the Dean requesting that the Museum might remain open until a later hour each evening during the month immediately preceding Part 1 of final examinations. Unfortunately, the Secretary of the Students' Union was in Edinburgh at the time of the meeting and it was impossible to discuss the Dean's reply as the Secretary had the letter.

Five thousand Students' Union Christmas Cards have been ordered and are expected to be on sale in early November at the competitive price of 5d. each (including envelope). The cards will be of four pages with a reproduction of Hogarth's "Pool of Bethesda" on high quality paper.

The View Day Ball proved to be a financial success and in addition, £71, the proceeds from the Tombola, have been donated to the Rahere Association. This was made possible by the generous gifts of many business firms. Judging from the many appreciative comments

of those who attended the Ball it was an extremely successful event. Few of those who attend this function realise the immense amount of time and energy that is expended by the small committee each year and many thanks are due to them for their efforts. The presence of an increased number of senior hospital staff was particularly appreciated, and we hope that the same number will be encouraged by this year's success to come on future occasions. Several students are being approached at once to form the committee for next year's Ball in the hope that early organisation will enhance the success of the event.

No further progress could be reported on the plans for improving the Abernethian Room as the proposals mentioned previously in the *Journal* were still under consideration by the College Authorities. As it has come to light that the Women Students' Lounge is also in need of improvement, proposals to remedy this were submitted, to be considered at the same time as those for the Abernethian Room.

Bart's is to send three delegates to the B.M.S.A. Annual General Meeting this month and a sum of £15 was voted towards their expenses. The delegates are N. D. Whyatt, M. W. Casewell and Miss Jane McKeown. J. A. II. Bootes will also be attending this meeting in his capacity as President of B.M.S.A.

The following Honours Colours were ratified by the Council:

R. P. Davies, J. E. Stevens—Rugby Union Football Club.
P. Savage—Association Football Club.
Miss Elizabeth Knight, Miss Margaret Childre—Ladies' Hockey Club.

Several preclinical students have asked if the bar at College Hall can be opened in the lunch hour and it was decided to investigate this possibility.

The next meeting of the Council will be on Tuesday, 17th November, 1961, and the A.G.M. of the Students' Union on Tuesday, 21st November, 1961. It is hoped to hold the latter meeting in the clinical lecture theatre.

Students' Union members are reminded that they may attend all meetings of the Council, Athletic and General Committees as observers.

Extract from the Students' Union report in the September, 1965, edition of the *Journal*: At the meeting held on 3rd November, Mr. Hogarth in the chair, it was decided that boxing should be discontinued in the Smoking Room* after 8th November.

*Small Abernethian Room.

NORMAN ADAMS JORY, B.Sc., F.R.C.S.

An appreciation

AMONG THE MANY who returned to Bart's after the armistice of 11th November, 1918, and the vast new entry to the Medical College between 1918 and 1919, many in uniforms of great variety, none stands out in the memory more clearly than Lieut. Norman A. Jory of the New Zealand Rifle Brigade, marked out as he was by the unique headgear of the N.Z. Expeditionary Force, the prototype of the boy scout hat. His cheerful manner and ready, always good natured, wit made many immediate and life-long friends. His



definite antipodean accent, much of which has persisted over the intervening years, was an added attraction. Arriving with a B.Sc. Auckland and a scholar of that University he found the preclinical work easier than many ex-servicemen of his age and rapidly made his mark by gaining the Treasurer's Prize in Anatomy and the Junior Scholarship in Anatomy and Physiology. He dressed for Holburt Waring, achieved the Brackenbury Scholarship in Surgery and, as was traditional in those days, became house surgeon to the "old man" in 1923, the year of the octo-centenary. He followed this by serving as house surgeon to the E.N.T. Department under Harmer and Sydney Scott. The F.R.C.S. was added in 1925 and he then became a demonstrator in anatomy

under "Sandy" Macphail for two years. He still remained faithful to the E.N.T. Department and after a registrarship at the Central London Hospital, Gray's Inn Road, became for five years chief assistant to the Throat Department at Bart's, and followed this by being Chief Assistant to the Ear Department. The two were, in those days, separate and only became united after the last war. He was appointed Surgeon to the E.N.T. Department of the Royal Northern Hospital and numerous Cottage Hospitals round London, the most notable being those at Harrow and Hendon. In 1939 he rejoined the department at Bart's as assistant surgeon to the Ear Department and became second in the united department after the retirement of Bedford Russell in 1946. He was secretary and later vice-president of the section of otology in the Royal Society of Medicine.

Always a keen member of the Students' Union, his abiding love was rifle shooting. He and others established Bart's ascendancy at Bisleigh with the best eight in living memory and an excellent capacity for beer. Both Norman and John Elgood reached the élite of the King's Hundred and Norman notched twenty-fifth place. He also swam for the hospital at a time when our standard was high and most of his summer holidays for years have been spent in Cornwall, where the bathing was his chief delight.

While no great contributor to medical literature, Norman Jory was a prodigious worker in the clinical field and many thousands of hospital patients have been grateful for his patient skill and gentleness. His imperturbability was proverbial and many a sticky clinic or operating session has been relieved by his keen sense of humour. He was much in demand by, and at the service of, colleagues and their families, always a tribute of high esteem.

We were all worried when, last year, he worked himself into a severe cardiac breakdown, but he came out of it smiling and with flying colours and came back to full work and a short enjoyment of our new quarters before retirement.

We shall all miss that immense Rolls Royce, the wonder of its age when first it appeared in the square, but still more shall we miss the driver and hope that he will find time off from his garden to visit us from time to time and keep up his long and faithful attendance at Eleventh Decennial dinners. F.C.W.C.

Fifty years ago

"LAY STRICTURES UPON hospitals are usually too patently false or silly to deserve notice; but one criticism on this occasion is too funny to ignore. 'The fact is,' we are told, 'house-surgeons are little more than boys'; and further on we gather that a 'youth of twenty-six cannot be entrusted with life or death issues'.

"A St. Bartholomew's man applied recently for an appointment at a London hospital and was informed that he was 'too old at twenty-seven'. Can it be possible that lay and professional opinions are at variance! Or are we to understand that some wonderful source of wisdom may be tapped between the ages of twenty-six and twenty-seven?"

"The neophyte who is hearing with growing apprehension the pessimistic forecasts for the future of our profession will now drain the dregs of despair when he realises that he will be expected to labour until his edentulous gums and white hair proclaim him to have passed the boundary of boyhood; by which time he will have spent thousands of pounds in the process of equipping himself for his first house-appointment, which will endow him with 1s. 4½d. per diem (exclusive of board and lodging)."

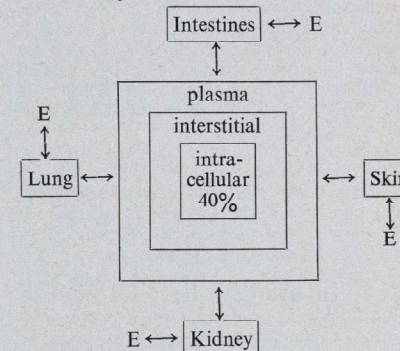
Last Month

On 2nd October, the preclinical academic year began ninety-five days after the last one ended. During this time the new physiology block had grown a couple of feet, College Hall food had remained the same at the same price of twenty-seven pennies a cheap meal, nine nine o'clock lectures had been insinuated into the Wednesday morning curriculum, and yet another (the fifth within a year by my reckoning) male students' cloakroom attendant had left rather suddenly. The new intake seemed larger and stranger than ever. To-day in Charterhouse Square Bart's preclinical students are uncommon among the hoards of Royal Dental Hospital dentals, a sprinkling of London 1st M.B. students, a few foreigners and quite a lot of women.

The Charterhouse Dramatic Society representative is moaning and one cannot blame him. Those who bothered to go will remember the energy he threw into last year's amateur dramatics, as a producer in the nursery productions and as Lord Peter Wimsey in the Cripple-gate Theatre. Now he wants just twelve students, not necessarily talented, for this year's preclinical production. The moanings might have remained subdued and his

sentiments gone unheard, but for the provocation of some earnest young woman. "Some people have better things to do than amateurish dramatics." That did it! Chivalry would draw a veil over the Gallic passion and invective of the next ten minutes, but not journalism. "You typify the two hundred totally uncontributory members of this Medical College. Not only do you refuse to take part in anything yourselves, but you refuse to acknowledge the smallest spark of initiative shown by the very few. What do you do, I ask you? Nothing. Do you ever do anything? No. If you do not take part will you come and watch? No, of course you won't." I sympathised with him and said I would mention the matter.

Man was drawing on cave walls tens of thousands of years ago and one assumes that he later devised written language because it was a less cumbersome form of communication. This would not seem so from the following which was the climax of an interesting Biochemistry lecture last week:—



It might be of use to those who are familiar with the mystic E! Tally ho, Mr. K aside, we may return to the trees yet. S.C.-S.

A NATION IN DANGER?

Doctor: "Where are you going for your holiday?"

16-year-old girl patient: "I'm going to France with my boy friend on his motor scooter."

Doctor: "Where are you going to stay?"

Girl: "We are touring round and we shall stay each night in a pub and if we can't get in we shall doss down together in his tent."

Doctor: "What does your mother think about that?"

Girl: "She doesn't mind a bit so long as I wear my crash helmet."

LETTERS TO THE EDITOR

TUTORS IN MEDICINE & SURGERY

Dear Sir,

I hope you will allow me, through the medium of your columns, to decry one of the more shameful restrictive practices perpetrated by the Medical College. I refer to the case of the student who has failed one or more parts of his final examinations. Although Cambridge may be different, it is well known that the University of London and the Conjoint Board require this student to undergo a course of revision in the subject he failed. At the time of writing (11/10/61) there is no official tutor in Medicine or Surgery and consequently no revision courses in these subjects. Indeed, the latter post has been vacant for nearly six months. Yet the failed student still has to pay £32 10s. every six months as "tuition" fees.

The situation as we have it today is that the Medical College will sign up the student as having attended revision courses, even though in reality there are none. But is it reasonable to expect the student to *pay* for tuition he is not receiving? If the student should refuse to pay his fees the College will not sign him up as having attended a revision course. Justice indeed!

Is the student who fails his finals to become an outcast from the hospital? Is nobody going to find out how and why he went wrong and give him advice on a better approach? It seems not. This student may fail many times over for all the College cares—just as long as he pays his fees! Never was the principle of "I'm all right, Jack" more aptly illustrated. This "lining" of the College's pockets has gone too far. Either they promptly re-introduce the revision courses or they should abolish the fees paid for non-existent tuition.

Yours, etc.,

R. N. W. PRICE.

Dear Sir,

Mr. Fraser recently published a letter in the *Journal* advising students that it is better to learn for yourself than to be spoon-fed, and I think that this is very good advice. What Dr. Price has not realised is that the £32 10s. required as tuition fees every six months only covers about one-tenth of his expenses to the College. Lecturers and other College staff have to be paid, and for that sum he obtains entry to lectures, demonstrations, outpatients, and ward rounds; and he has free access to the

libraries and museums. He can seek advice on any point that is troubling him from any member of the College staff that he cares to approach. Facilities such as this cost considerably more than £65 per annum per student, entirely irrespective of whether Medical or Surgical Tutors are employed by the College.

These posts were established shortly after the war, and have proved very successful inasmuch as students have appreciated the individual tuition that the Tutors have been able to give them; but the tuition fees of the students allocated to the tutors do not in fact go so far as to cover the salaries of the Tutors, let alone the other expenses of running a large College. Previous to this, students used to be "signed up" for re-taking their Final Examinations by the Demonstrators in Practical Medicine and Practical Surgery, but this was held to be rather unsatisfactory, although it in fact complies with the regulations.

No amount of formal teaching can approach the value that is obtained by learning for yourself, and I cannot accept therefore that the lack of Medical and Surgical Tutors is in any way a basic deficiency. I should be much more interested to hear whether Dr. Price finds that the conditions at the Medical College make it difficult for a student to do his own learning.

Yours faithfully,

H. WYKEHAM BALME,
Sub-Dean's Office.

BANK TUB

Dear Sir,

I read with interest and pleasure the report of the Rowing Club this season. May I once more make the suggestion that a "Bank Tub" should be acquired for the Swimming Bath for the use of nurses as well as rowing men. Such a tub could easily be hoisted to the ceiling when not in use. It may be that in these modern times "Tubbing" is not considered necessary. I would not know, but I do see these curious craft in the Ancient Universities. As I was the first to design one I may be biased.

Yours faithfully,

MALCOLM DONALDSON.

BART'S SKI CLUB

The Club will be going to Zürs (5,700 ft.) from 13th-28th January, 1962. Inclusive cost will be about £43. Further details from R. Bergel, Abernethian Room.

AN UNUSUAL ELECTROCARDIOGRAM

by C. W. Burke

This case summary is of general interest because it relates to severe cardiac pain in rheumatic heart disease with a bicuspid aortic valve and because the onset and end of ventricular fibrillation was observed by chance on continuous E.C.G.

The patient was a married woman aged 61, admitted to the Metropolitan Hospital on 21st February, 1961. She complained of agonising constricting retrosternal pain radiating to the back.

History

At age 13 and again at 25 the patient had had rheumatic fever. She had remained in good health with three normal pregnancies until about age 30, when she attended another hospital with exertional dyspnoea. A year later her fourth pregnancy was terminated because of her heart. At that time she could climb only two flights of stairs, but had no pain. Her symptoms remained apparently stationary until age 45, when she attended again with pain in the chest radiating to the back and left arm and increased on exertion. At age 56 she attended the Metropolitan. Her complaints were retrosternal pain radiating to the back, and severe exertional dyspnoea (one flight) with orthopnoea. There were palpitations and bubbling in the chest. She had repeated small haemoptyses. She was giddy and unable to walk more than a few steps. She was admitted because a right thyroid swelling had appeared on the death of her daughter from Hodgkins Disease. This was investigated and she was discharged. Her symptoms gradually increased. Aged 58 she noticed increasing nocturnal cough, while giddiness was the main complaint. It diminished over the next year, during which she was again admitted for rest which temporarily freed her of pain. In 1960 (aged 60) she had increasingly frequent attacks of paroxysmal nocturnal dyspnoea in addition to her exertional dyspnoea and pain. The pain remained about the same, except that it now radiated either into the neck or the left arm as well as the back. Only slight pain was present at rest. Palpitation had increased. In January, 1961, she was admitted because of increased dyspnoea, present at rest. Pain occurred in the arms and chest

on the slightest exertion. Orthopnoea, cough and bloodstained sputum were present. She became well enough for discharge in February. Despite strict bed rest her pain rapidly became worse and she was re-admitted ten days later.

At this time there was intense dyspnoea at rest, with constant crushing pain at rest in the distribution already given. There was little cough and no sputum or haemoptysis. Marked orthopnoea was present. There was pain in the right hypochondrium; this had been present for years and was associated with flatulent dyspepsia. The patient had vomited four times in the previous 24 hours, and there had been four otherwise normal bowel actions on the morning of admission. She had had two episodes of dysuria months previously, but no haematuria. Sweating was marked. She complained of no weight loss, visual or auditory disturbance. There was some rotational vertigo. There had been no stridor. Apart from rheumatic fever, chorea, pregnancies and one attack of acute cholecystitis there had been no other illness. There was no relevant family history.

Examination on admission

The patient was in pain, dyspnoic, apprehensive, sweating and pale but there was a marked malar flush. Blood pressure was 150/90, pulse 92, irregularly irregular; respiration rate 36 per minute, temperature 98.2°F. The fundi were normal. There was no increase in jugular venous pressure. The trachea was central. There was a 1 inch firm swelling in the right thyroid lobe. Chest movements good, basal rales present on both sides. Heart: cardiac impulse strong with left ventricular heave and right ventricular slap. No thrill was palpable. There was a loud presystolic gallop. The mitral first and pulmonary second sounds were loud but not split. There was a harsh apical crescendo diastolic murmur, conducted into the axilla, with a short apical mid-systolic murmur. There was an early diastolic murmur at the left sternal border and an aortic systolic murmur conducted into the neck. No hepatomegaly, oedema or venous pulsation were noted. The leg pulses were normal and no abnormality was noted in the hands. No

other abnormality was detected on physical examination.

Investigations

Haemoglobin: 12.4 G/100 ml.
W.b.c.: 5,000 per c.mm.
E.S.R.: 3 mm. in 1st hr. (Westergren).
Serum Electrolytes: Sodium 133 mEq/l;
Potassium 4.7 mEq/l; Chloride 100 mEq/l; Bicarbonate 28 mEq/l.
Spun urine: Sterile, no abnormal features in deposit.

P-A chest film showed considerable enlargement of the left ventricle and probably also of the right, lung fields hyperaemic. Tracheal compression very likely due to retrosternal goitre had been suggested at previous examinations, but was not demonstrable on the new film.

Electrocardiogram. (Fig. 1.) Sinus rhythm, but variable P-R interval (0.04 - 0.16 sec.). Large P ("mitrale") waves in anterior chest leads. P inverted in leads 3 and AVR. Left bundle branch block with notched and slurred complexes (QRS 0.16 sec.) in all leads, the principal deflection upward in lead 1 and

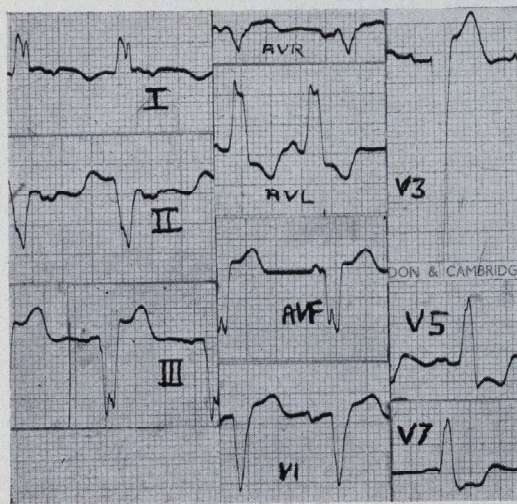


Fig. 1. Electrocardiogram on admission.

downward in lead 3. T waves inverted and large, with S-T segment depression in all leads.

1957 investigations—B.M.R.—2%, sleeping pulse rate 70-75. Serum cholesterol 110 mgm./100 ml. Wasserman reaction negative.

Diagnosis

"Status Anginosus" due to aortic valvular disease. Mitral stenosis and regurgitation, aortic stenosis and regurgitation. Chronic cholecystitis.

Clinical course and treatment

Outpatient maintenance had been Digitalis leaf gr. 1 b.d., amylobarbitone gr. $\frac{3}{4}$ t.d.s., pentaerythritol tetranitrate 30 mg. b.d., and glyceryl trinitrate gr. 1/130 p.r.n. This regime was continued with strict bed rest and 2 litres was allowed as daily fluid intake. Pain was controlled with Inj. Papaveretum gr. 1/3 six-hourly for 48 hours. The pain was then markedly less, but still present at rest. It was completely abolished with Iproniazid 50 mgm. t.d.s. After a week there was no pain at rest, the respiration rate had fallen to 20 and the pulse rate was 80-90 per min. Attacks of sweating, however, occurred nightly. After three weeks the patient was able to get out of bed without pain, but not to walk. On the 23rd day she collapsed suddenly in bed, sweating and pulseless. There was intense dyspnoea, pallor and cyanosis. The pulse was rapid, weak and irregular and the blood pressure 100/40. The lung fields were clear. There was no venous engorgement. Oxygen and intravenous hydrocortisone were given. An E.C.G. was performed; during the tracing the patient developed ventricular fibrillation and died after 40 seconds. (Fig. 2.)

Abnormal findings at necropsy.

The lungs were congested. There was marked left and right ventricular hypertrophy. All the heart valves showed gross rheumatic vegetations; the aortic valve was calcified and the third cusp was rudimentary. (Fig. 3.) Both

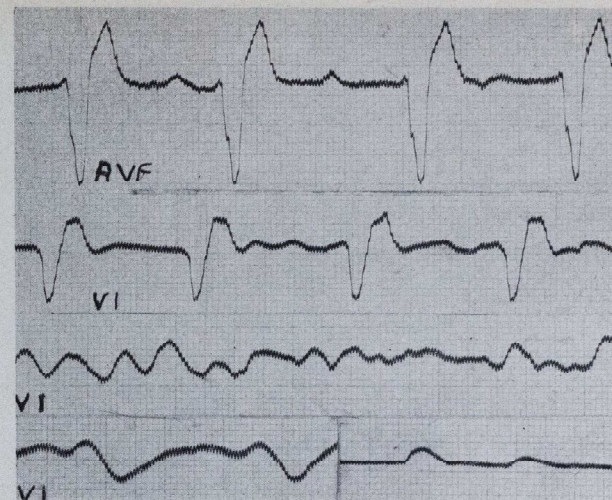


Fig. 2. Terminal Electrocardiogram, showing onset of Ventricular Fibrillation.

coronary arteries were patent and free of atheroma throughout their length. The aorta was almost free of atheroma. Two cholesterol stones were present in the gall-bladder, which showed some fibrosis. An adenoma of the right thyroid lobe was 1 inch in size and sections showed cyst formation with a few colloid-containing vesicles. There was no retrosternal thyroid and the trachea was normal.

The cause of death was acute left ventricular failure due to myocardial ischaemia due to aortic stenosis.

Comment

Cardiac pain in aortic stenosis. Severe angina is common in aortic stenosis. Baker and Somerville (1959) in their patients recorded angina in 34 out of 50, 32 aortic valves being calcified. In 19 patients angina was the presenting symptom. A high incidence of angina in pure aortic stenosis (59%) was found by Hancock and Fleming (1960), especially in older patients. In younger subjects dyspnoea was the commonest presenting symptom. Mitchell et al. (1954) noted angina in 36% of their patients with pure aortic stenosis. In pure mitral stenosis angina occurred in only 3.8% of patients (Chiche et al., 1961). In combined mitral and aortic stenosis angina

is half as common as in pure aortic stenosis (Urich et al., 1961). This is supported by Katznelson et al. (1960). These workers found the calculated work of the left ventricle to be raised nearly as much in mitral and aortic disease as in isolated aortic stenosis. The raised cardiac output often found is proportionately taken up by the hypertrophied left ventricle (Hancock and Fleming, 1960) and ischaemia results due to the high pressure gradient across the aortic valve with a fall in the mean blood pressure. In aortic stenosis the frequency and severity of coronary atheroma is inversely proportional to the degree of stenosis. It is interesting to note that 10% of aortic stenotics have left bundle branch block (Mitchell et al., 1954) and these patients' life expectancy has been said to average three years (Campbell, 1944).

Bicuspid aortic valves were present in 4.5% of cases studied post-mortem by Soulie et al. (1960), but only half of these had been diagnosed ante-mortem as aortic valvular disease. 18 out of 80 cases of aortic stenosis had bicuspid aortic valves (Bacon and Matthews, 1959), calcification being more common in the congenital type. The authors deduce that aortic stenosis in the elderly is more likely to be degenerative than rheumatic.



Fig. 3. Heart showing gross hypertrophy and the bicuspid aortic valve, which is heavily calcified.

Monoamine oxidase inhibitors in angina. Much conflicting evidence has accumulated on this subject. Shoskes et al. (1959) found Iproniazid to be of value, while Cole (1960) and Fife et al. (1960) found it useful only in more severe angina where nitrites may be unsatisfactory. Papp and Smith (1960) recommended both Iproniazid and Nialamide in the treatment of status anginosus (continuous angina without cardiographic evidence of infarction). The incidence of liver damage has been quoted at one in 4,000 (Snow and Anderson, 1959).

Ventricular fibrillation in ischaemic heart disease. This arises as a result of the appearance of multiple ventricular ectopic foci excited by myocardial anoxia, leading to electrical instability (Adelson and Hoffman, 1961). The tracing of Fig. 2 suggests this with the gradual appearance of slow waves in V 1 in the presence of QRS complexes. Increased ischaemia is evident, QRS being now 0.2 sec. as opposed to 0.16 sec. previously and the

RS-T depression being much greater.

I am deeply indebted to Dr. N. G. Hulbert for his advice and assistance in preparing this report.

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FURTHER EVIDENCE OF PANCREATITIS AND HYPERPARATHYROIDISM

The 1961 Bentley Prize winning essay: Praemonitus: Armatus

by T. G. Hudson

INTRODUCTION

During the last five years there were four cases of Hyperparathyroidism who had a Parathyroid tumour removed at operation at St. Bartholomew's Hospital. The common feature of hypercalcaemia and hypophosphataemia caused, in two cases, extensive Osteoporosis but no renal lesion; in one case, extensive calcification of the urinary tract but no Osteoporosis; and in one case, Pancreatitis. This latter case is presented here not only because Pancreatitis is a newly discovered associated disease, but also because it shows other features of unusual interest. Only during the last three years have there been reports, all from America, of cases showing Pancreatitis with Hyperparathyroidism.

THE VARIED CLINICAL PICTURE OF HYPERPARATHYROIDISM

A review of the literature of Hyperparathyroidism impels one not to be too dogmatic. The disease was first discovered by Mandl¹ and Dubois in patients with a marked degree of bone disease and for a long time it was considered synonymous with Von Recklinghausen's Osteitis Fibrosa Cystica. But later, a group of 35 cases was reported with urinary tract calcification, 12 of which had no clinical or X-ray evidence of bone disease (Albright, 1937^{2, 3}). Furthermore, cases of bone disease but no renal lesions had been reported.

This led to the realisation that the bone and renal lesions must be complications, not necessarily related, of a primary blood disorder. This disorder, due to an excess secretion of Parathyroid hormone, results in an elevation of the Serum Calcium and a depression of the Serum Phosphate which can be accurately measured in the laboratory. These findings are the common link which leads to a diagnosis of Hyperparathyroidism in almost every type of case. The primary disorder alone would produce symptoms such as anorexia, nausea, constipation, polydipsia, polyuria and increasing lethargy, and this has been sufficient guide in some cases to seek the tell-tale blood calcium and phosphate levels.

Other related clinical and pathological dis-

orders were reported later. Peptic ulcer was associated with an acutely fatal form of Hyperparathyroidism (Rogers, 1946⁴, 1947⁵; Frame, 1960⁶). A feature at autopsy in these cases was widespread calcification of the soft tissues. Recently, Pancreatitis has been noticed as a predominant feature (Cope, 1957⁷; Hoar, 1958⁸; Gross, 1958⁹; Lacher, 1959¹⁰). Calcification has been present in the Pancreas in many, but not all, of the cases. The exact relation of the bone, renal, peptic ulcer and pancreatic disorders to the biochemical findings in the blood is still far from certain. In the majority, but again not all, of the cases it is evident clinically that the blood calcium and phosphate levels change first. This is Primary Hyperparathyroidism. But in chronic renal disease, for instance, it is evident that it occurs later. This is Secondary Hyperparathyroidism.

Surgical exploration of the neck, and, if needs be, of the anterior mediastinum to find the secreting Parathyroid tumour is the only course open, once the diagnosis has been made. The onus is on the Surgeon, for the confirmation of Hyperparathyroidism depends on a tumour being found. For example (Alan Rose¹¹), a patient underwent her first operation at which all four Parathyroid glands were biopsied and found to be normal. The continuation of her symptoms demanded a second operation. So, one month later, the glands were again biopsied and it was not until the sternum was split that a definite Parathyroid tumour in the anterior mediastinum was revealed. The removal of a tumour does not guarantee that another will not grow¹², so that if the symptoms reappear, it is indicative that another tumour has formed. There is, at present, no way of telling what will be found at operation. It may be an Adenoma, Primary Hyperplasia, or a Carcinoma.

This, then is a brief outline of Hyperparathyroidism—a disease to be expected in middle and late adult life.

CLINICAL HISTORY

In 1946, Mrs. W. T., aged 42, mother of two children, living on the outskirts of North London, first started having periodic attacks of

polydipsia, polyuria and vomiting. These attacks came on quite suddenly with an insatiable thirst, which eventually made her quite frightened of venturing far from home. During the attacks, which lasted for two or three months, there was also polyuria, almost total anorexia, and frequent vomiting of large quantities of dark green fluid but no accompanying abdominal pain. Weakness, constipation, joint pain and swelling, and a dull headache over the left eye were other symptoms. Attacks subsided over the period of a week and for three or four months she was quite free of symptoms. During this time she had her third child with no mishap. No doubt it was owing to the fact that these symptoms were difficult to diagnose that it was not until five years later that she was treated as a hospital case.

First it was thought she had Diabetes Insipidus, and a long series of tests was done in hospital to find confirmatory evidence. Then it was decided to measure her Serum Calcium, the normal being 10.5 mg's per cent. It was 14.8 mg's per cent and a reading later was 17.8 mg's per cent. Following on from this, X-rays were taken of the Skull, Cervical spine and Mandible which showed Osteoporosis; a negative Calcium balance over three days was obtained; there was slight Albuminuria; the Blood Pressure was 170/110 mm's Hg. On this evidence Hyperparathyroidism was diagnosed. So in 1952 she underwent an exploration of the neck for a Parathyroid tumour. This was not found, but a partial Thyroidectomy was done. However the post-operative result was very surprising because, after overcoming an initial period of oliguria, her symptoms disappeared—the insatiable thirst and vomiting not to re-appear. But the Serum Calcium remained raised. Unfortunately, no measurements of the Serum Phosphate were made at this time. It was thought that the tumour had been disturbed. Not until three years later was she re-admitted for a short time with a recurrence of symptoms, including the pain and swelling of joints, but they cleared up. The only change in the blood tests was now an elevated Blood Urea 50 mg's per cent.

1956, four years after her operation, marked the onset of some quite different symptoms. The only previous ones which persisted were the joint pain and swelling affecting mainly the knees but also hips, shoulders, spine and ankles and occurring intermittently, and the urine frequency which remained above normal, $\frac{(D) 6}{(N) 2-3}$. Of the additional ones, there were attacks of a

severe aching pain in the right loin, of sudden onset, causing her to double-up. It radiated to the back and right shoulder blade and there was associated anorexia and nausea, but no vomiting. Attacks of the loin pain lasted one or two days gradually wearing off, occurring about once a week in groups with much longer periods of remission. In time they became more severe and frequent and later involved the left loin as well. Also there was a continuous lower thoracic back pain of a milder nature which never intensified noticeably later. A pillow for the small of the back and hot water bottles were used when sitting or lying down, but the only real relief was given by Pethidine injections or tablets. A gradual lethargy overcame her during the next four years and a lack of interest in doing anything.

It was an attack of the loin pain that caused her to return to hospital in 1956. Renewed investigation showed Serum Calcium 15 mg's per cent was still elevated. A Plain Abdominal X-ray revealed numerous opacities which were thought to lie in the kidneys. This suggested the loin and back pains to be renal in origin—a recognised complication of Hyperparathyroidism. The pain eased, but at the time of discharge she was referred to a Thoracic Surgeon at St. Bartholomew's Hospital for a further operation to search for a tumour in the Anterior Mediastinum. Her admission there was delayed for almost a year because the loin pain was not severe again and not even during her first stay in St. Bartholomew's Hospital.

Reassessment revealed these results:—

Serum Calcium 12.2 mg's per cent.
Serum Inorg. Phosphate 2.4 mg's per cent (normal 3.0 mg's per cent).
The X-ray findings were confirmed, Osteoporosis being seen also in the Femora, Lumbar spine, Pelvis and Phalanges. It was not extensive.
The Blood Urea had dropped to 32 mg's per cent.

Thus the diagnosis of Hyperparathyroidism with apparent renal damage, as shown on X-ray, was confirmed. A Barium swallow showed a slight deviation of the oesophagus in the neck, suggesting the presence of a tumour and so it was decided to re-explore the neck before operating on the chest. But the patient had few symptoms at the time, and so was discharged and asked to return a year later. During this next admission, in 1958, Intra Venous Pyelogram and Cholecystogram revealed that the opacities originally assumed to

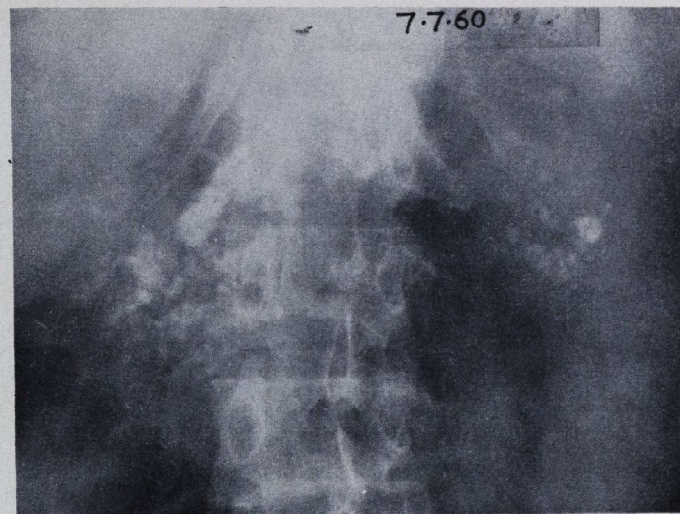


Fig. 1. Plain X-ray of abdomen.

lie in the kidneys, were in fact in the Pancreas (Fig. 1). At the same time the I.V.P. showed renal function to be only slightly impaired, this supported the result of a urine dilution test: Δ 1004-1018 done in the previous admission.

Investigations were now changed to see if the loin pain had been due to Pancreatitis. An elevated Serum Amylase: 25 Wohlegemuth units (normal 10) was obtained, microscopic examination of faeces showed an excess of partly digested fibres but was inconclusive; unfortunately there was no fat balance taken. The Amylase result was sufficient evidence to confirm that she had in fact Pancreatitis associated with her Hyperparathyroidism, and the pains were Pancreatic in origin. But her symptoms were mild again and no lump was felt in the neck. This allayed suspicion, operation was again deferred, the patient went home and time elapsed. Treatment at this time consisted of a low Calcium diet not to aggravate the effect of hypercalcaemia on renal damage, and Sersasil for Blood Pressure: 190/120 mm's Hg.

Eventually in June, 1960 she was re-admitted, again on request. Serum Calcium: 11.8 mg's per cent; Serum Inorg. Phosphate:

2.7 mg's per cent. These had changed little. Serum Alkaline Phosphatase (normal 10) was 23.6 K.A. units. In view of Osteoporosis having been recognised 8 years previously, it is surprising that this value, a reflection of bone activity, in particular, repair, was never greater. It had always been normal before 1958. X-rays showed more extensive Osteoporosis of the Skull and increased calcification in the Pancreas. The Serum Amylase this time was normal—usually it is only raised during an attack of Pancreatitis and so it was as expected. Blood Pressure: 185/100 mm's Hg. Blood Urea: 87 mg's per cent. These findings showed the disease to be undoubtedly progressing, with irreversible renal damage as the most serious consequence to come.

On 29th June, 1960, Dr. O. Cope, a very experienced Parathyroid Surgeon from America, who has long been a pioneer in this field, performed a re-exploration of the neck. A Parathyroid tumour was found to occupy the position of the left lobe of the Thyroid, which was missing, and removed. Other Parathyroids were seen and left in situ. Fortunately the patient was spared a more extensive operation. It was thought that the missing left lobe of the Thyroid had been removed at the earlier operation and that the adenoma, having

laid behind the trachea, had since slipped out into the empty space. This would explain why it was not palpable. The tumour was typical of a Parathyroid adenoma. A haematoma formed quickly when it was pierced, in situ, with a needle; it was soft, apparently encapsulated, slightly lobulated, yellow/brown colour. The cut surface showed a solid uniformity; Histology showed, a nodular mass of parathyroid tissue composed of chief cells with focal areas of vacuolation resulting in "water clear" cell change; no oxyphils; no evidence of cystic change or malignancy (see Fig. 2).

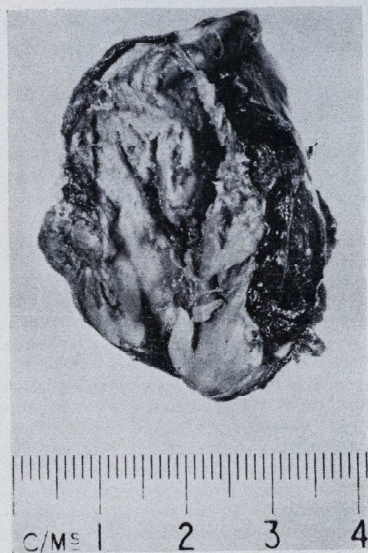


Fig. 2. Parathyroid Adenoma (removed at operation, 29.6.1960).

During the early post-operative period, hypocalcaemia developed. On the third day Chvostek's sign was positive. It became unpleasant for the patient, who on waking on the morning of the fifth day described the sensation as "a crushing feeling all over the head . . . the outside world was receding into the distance . . . losing control of her limbs . . . her hands were going numb and stiff." Her hands showed Carpo-Pedal spasm. Intravenous then oral Calcium Gluconate followed by Vitamin D were given as replacement therapy. On the twelfth day Chvostek's sign was negative. But

the patient remained very depressed and furthermore the Serum Calcium was still falling. Two days later therapy was changed to A.T.10, a Parathyroid hormone substitute, and on the following day Magnesium Sulphate was given parenterally to ease her mental condition. There was considerable improvement overnight, and her depression was gone. This therapy continued, later including Calcium Gluconate and Vitamin D again, until her discharge on the 28th day. Within three months all replacement therapy was stopped. The atrophic Parathyroid glands had become revitalised.

Now, in March, 1961, 9 months since the removal of her adenoma, she is much improved. Nevertheless, the intermittent joint pain and swelling remains, and there is increasing ankle oedema and breathlessness on exertion no doubt related to the Blood Pressure: 210/120 mm's Hg for which Serpasil is still taken. But the pains in the back and loins have virtually disappeared. Though not much appetite has returned, the lethargy has gone and she is active once more, and the frequency of micturition is less. X-rays do not yet show any change in the extent of Osteoporosis or Pancreatic calcification. But, most important of all, the diagnostic criterion of Hyperparathyroidism is no longer present. The Serum Calcium and Phosphate levels are now normal.

DISCUSSION

This case of Hyperparathyroidism was proved at operation by the removal of a secreting Parathyroid adenoma and the Serum Calcium and Phosphate levels have since returned to normal. Neither of the usual features occurred. There were not the bone pains or multiple spontaneous bone fractures of Osteoporosis, nor the haematuria and painful micturition of urinary tract calculi. The finding of Osteoporosis in this patient was secondary to her symptoms and it was not extensive except in the skull. The Serum Alkaline Phosphatase level of 23 KA units was not high. The other two S.B.H. patients with Osteoporosis had levels of 54.5 and 36 KA units. Renal damage, if the Hypertension is treated separately, was never marked. This was shown by the trace of Albuminuria not increased in almost ten years, and the Urine Dilution Test and Intra-Venous Pyelogram results.

Instead, two sets of symptoms, quite markedly separated by the four years after the first operation, were both associated with the biochemical findings of Hyperparathyroidism.

(a) Symptoms

The first set of symptoms characterised by periodic polydipsia, polyuria and vomiting though not common are well recognised as direct results of hypercalcaemia. The thirst may well result from stimulation of osmoreceptors by an increased ionic concentration in the blood, polyuria follows from a satisfaction of the thirst. The sudden attacks, a result of uncontrolled glandular activity, remind one of the paroxysmal tachycardia of a Phaeochromocytoma.

The weakness and lethargy which became more noticeable towards the second operation are also attributed to a direct effect on nervous tissue by the hypercalcaemia. It is strange how the polydipsia and vomiting stopped completely after the first operation when no parathyroid tissue was removed.

The second set of symptoms, of which the loin pain was most noticeable, required the help of radiology to pin-point the lesion to the Pancreas. Unfortunately, when the first plain Abdominal X-ray was taken, it was not noticed that the opacities in Fig. 1 crossed the mid-line, a fact which could have led to an earlier diagnosis. Calcification had occurred, giving rise to a Chronic Relapsing Pancreatitis, most likely caused by Calcium Phosphate calculi obstructing the pancreatic ducts.

Metastatic calcification of the soft tissues is a common feature of Hyperparathyroidism and the most severe effect is on the kidneys where it may be interstitial, or in the ducts of the nephrons or lower down the urinary tract. This case illustrates how it may also occur in the Pancreas and give rise to symptoms.

Calcification also occurs in half the cases of Chronic Relapsing Pancreatitis resulting from Alcoholism, Peptic Ulcer, or Gallstones so the aetiology in this case, whether it was Pancreatitis of another cause or whether Hyperparathyroidism, is uncertain, though in view of the history it is likely that the latter caused the stones to form. Pancreatitis as a feature in Hyperparathyroidism may exist without this calcification¹¹. It is to be noted that neither Diabetes Mellitus nor Steatorrhoea, other complications of Pancreatitis, were present in this case. Both these have been reported before^{9, 10}. The loin and back pains disappeared post-operatively and this is in accord with previous cases reported as is also the fact that there is still no change in the X-ray pictures of the Abdomen. More information is awaited on this at a later "Follow-Up".

The significance of the Arthritis, dating from

the onset of the history and still present now, remains uncertain. It is presumed to be Osteo Arthritis. An X-ray showed numerous opaque loose bodies in the left knee. The relation of the Hypertension is also uncertain, since renal damage does not appear to be severe. It existed in 1951 and the diastolic pressure has increased only 10 mm. Hg in 10 years, with Serpasil treatment since 1957. The symptoms of Arthritis and Hypertension are those that remain after the second operation and the blood chemistry has returned to normal. Maybe they are irreversible effects also due to Hyperparathyroidism, it is known that renal damage is irreversible; but maybe they are unrelated and coincidental. However, they persist, and, if subsequent discovery shows they are related, this is a reminder that removing the Parathyroid tumour will not in every case effect a complete cure.

(b) Biochemistry

Emphasis has already been made on the importance of the Serum Calcium and Phosphate levels for diagnosis. Fortunately in this case the values were diagnostic. But it might not have been so. Repeated Serum Calcium estimations must be performed as the level is prone to fluctuate. The Serum Calcium level is often depressed in Pancreatitis. One case presented during an attack with a value of 8.5 mg's per cent, but later during a remission it was 14.4 mg's per cent⁷. This count be due to a withdrawal of Calcium into areas of fat necrosis, or that it becomes attached to Serum Fatty Acids which are raised. For tetany has been observed in Acute Pancreatitis with a normal Serum Calcium. The Calcium level is also depressed if the Serum Protein is low⁸. It is a raised ionised Calcium which reflects increased Parathyroid activity; but since both the ionised and protein-bound forms are measured, if the protein-bound quantity is diminished, though the ionised part be raised, yet the total may be reduced to a normal level.

The Serum Inorganic Phosphate level will be raised if there is a severe renal damage. Sometimes, with a normal level, diagnosis can be made by showing an elevated Phosphate value in the urine³, although a recent paper belittles this extra test¹². Measurements of the Calcium concentration in the urine, in this case, showed an increase; but since the Serum Calcium level was already diagnostic, little further evidence was learnt from this. The value of testing the urine arises when the blood levels are not elevated. In respect, owing to the import-

ance of biochemical tests in this case, it is a pity that they were not more extensive—in particular the Calcium and Phosphate levels.

TREATMENT

A high Calcium diet was thought a contributory factor in some fatal cases of acute Hyperparathyroidism*. Thus, a low Calcium intake is now recommended and was, in fact, part of the treatment used. But the final treatment must always be Surgery.

CONCLUSION

Systemic disease may present itself in a great variety of clinical forms. An underlying abnormal Serum Calcium and Phosphate metabolism has here been shown to produce two of the less well-known clinical manifestations of Hyperparathyroidism. It remains an enigma that the first operation caused such a clear-cut distinction in symptomatology. The patient finds it hard to believe it was the same underlying disease. Pancreatitis in Hyperparathyroidism is less well-known because it is newly discovered. This case is of value if only to establish more firmly this new aspect of Pancreatitis.

This case is published by kind permission of D. A. W. Spence.

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B.M.S.A. VISIT TO RUSSIA

In September thirty medical students visited the Soviet Union on a medico-social visit. Our official programme, as arranged by Sputnik, the student tourist organisation, was more social than medical, but this was rearranged. Like true tourists we visited the Kremlin, Mausoleum, and numerous places of interest. Most of us will never forget the Lenin Museum, with its repetition of the all-too-familiar busts and portraits of the great revolutionary.

Two of our visits, to the Sechenov Institute, or First Institute Invested with Order of Lenin in Moscow, and to the First Institute named after Pavlov in Leningrad, taught us much about medical education in the Soviet Union.

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All 185,000 medical students in the 80 Institutes in the U.S.S.R. have the same six-year course. There is no difference in the curriculum, but some Republic institutes teach in their national language. The first two years are spent on pre-clinical subjects, but only basic anatomy is taught. Pharmacology and therapeutics are taught over the first three clinical years. When told that pharmacology was taught as a preclinical subject in some British schools the Director of the Leningrad Institute expressed bewilderment!

Although paediatrics is taught in the third year, it is not until the fourth year that students have patients of their own. The fifth-year students have more patients and have to

study the diseases more thoroughly. The sixth year is roughly equivalent to our pre-registration year. At the end of this year comes the fiftieth examination of the course, the state qualifying exam.

Throughout the course there is much emphasis on practical work. Twice as much time is devoted to this as to lectures. One month in each of the first two years is spent working as hospital orderlies; in the third year as trained nurses and in the fourth and fifth years in clinics. Teaching of surgery is combined with that of anatomy, and augmented by operations on cadavers and dogs. Groups of six or eight people work together, taking turns to be surgeon, theatre sister and anaesthetist. Our visit

THE DANISH MEDICAL SUMMER SCHOOL, 1961

This year the participants in the pre-clinical course at Aarhus University, Denmark, included two Bart's men, but, though we had only a small representation this year, we understand from our Danish friends that the hospital is by no means unknown to them, largely, it would appear, as a result of the activities of Bart's students on earlier courses.

The purpose of the course was, ostensibly, to give some introduction to clinical subjects, but, in spite of some excellent lectures (in English), the academic side of the course very nearly took second place; after all, living next to a Domestic Science School for one hundred and ten charming Danish girls with plenty of free time is hardly conducive to work. Nevertheless, I am sure that all the participants returned home with a fair idea of Danish medicine and an increased interest in clinical work.

The Danish hospitality is rightly famed and everywhere we went we met generous and friendly people, indeed, whenever we visited

to the operating room did not impress us with the effectiveness of Russian anaesthesia. Stress is also laid on research. This is sponsored by the Scientific Societies of the Universities, at which students are encouraged to present papers.

Jobs after qualification are allocated by the All Union Ministry of Public Health in Moscow. Fifth-year students are asked to state where they would prefer to work and this is granted whenever possible. "But," said the Director of the Leningrad Institute, "life is life. A student may get married and not want to leave. We try to arrange this." At least, everyone is guaranteed a job, but who would prefer marriage to Siberia? J.H.P.

a hospital or mental home we were given a meal, Danish beer and "akvavit" and free cigars. At this point I should like to thank all those responsible for the organisation of our visit to the Ceres breweries for keeping the tour brief and the beer flowing liberally.

The last four days of our stay in Denmark were spent at the International Student Centre at Hald and we were extremely fortunate in that our visit coincided with the best weather experienced in Denmark this summer. The Centre is situated by the side of a large lake which provides excellent swimming and boating. We were pleased to note that the visitors' book had already been adorned with the Bart's shield.

The course provides an excellent opportunity for meeting and making friends with both the Danes and also students from other British universities, and if courses in subsequent years are as good as this year's has been, I can thoroughly recommend them. T.P.D.

NOTICE !!

While in this office
Talk in a soothing, low voice and
AGREE WITH ME IN ALL MATTERS.
Be informed that when one has come to my
age, OPPOSITION and DISAGREEMENT
cause hyper-secretion of the hydrochloric
acid, hyper-peristalsis and rubus of
the gastric muscosa and
I BECOME VERY
UNPLEASANT !!!

Found in an art dealer's shop in Rothenburg.

RIFLE CLUB—Full-bore Report

The team successes this season were few and far between, but individual members re-deemed the club's reputation in a number of events. The season opened with a good attendance at the United Hospitals and University Trials, and this augured well for a keen squad for the coming season, the old members being ably supported by a number of new members. It was soon seen, however, that enthusiasm does not make up for form on the day.

University of London Championships.

14th May.

A large Bart's entry of 12 competitors and 3 teams failed to show their ability on a day with, except for the tricky wind, almost perfect shooting conditions. The teams were placed 5th, 7th and 9th, behind University College, Middlesex Hospital and two St. Thomas's teams. A. M. Pollock shot well and consistently to take the University Individual Championship, and J. Goldman won the Freshers' Prize.

Kent County Rifle Association Spring Meeting.

28th May.

This was a new addition to the programme, and was the only match shot away from Bisley. The weather conditions were not good, and rain and poor visibility made shooting, particularly at 600, very difficult. Again the team was unplaced, but A. M. Ward, P. N. Riddle and A. M. Pollock all made the prize lists.

University of London Pafford Cup.

14th June.

This match for coached teams of four was arranged for a rather unfortunate date, and our regular team was not available. The eventual composite team of one member each from the A, B and C, and one other, shot very well to finish 5th, against other College and Hospital first teams.

St. Bartholomew's Hospital Championships.

18th June.

The meeting was shot under pleasant conditions, and the highlight of the day was an exciting tie shoot for the premier award, the H. J. Waring Challenge Cup, between A. M. Pollock and H. R. Petty. This was eventually decided in Pollock's favour after the eighth tie shot at 600. The Benetfinck Handicap Cup and the Donegal Badge were awarded to H. R. Petty. The Nominated Handicap Sweepstake shot concurrently with the Championship was won by R. P. Ellis.

United Hospitals Championships. 14th July.

The Club's performance at this meeting was very disappointing. As holders of the Armitage Cup, the A team slipped badly to 5th. The principal scores were:

Westminster	368
St. Thomas's	368
Middlesex	367
London	365
St. Bartholomew's	359
Guy's	358

The winning score for 1960, St. Bartholomew's, was 374. The "B" team won their competition in a straight fight with the London "B". In the Individual Competitions, A. M. Pollock won the 200 range prize, and Miss Gardner won the 500.

Imperial Meeting. 10th-22nd July.

United Hospitals Challenge Cup. 25th June.

This match was fired in continuous light rain that made shooting very uncomfortable. Only one team was entered this year, and that did not shoot to any great effect, being placed 4th behind Westminster, Middlesex and St. Thomas's.

Individual Competitions.

Only one member, R. S. Thompson, shot the meeting this year, but he had a measure of success, being in four prize lists and making the second highest score in the Duke of Gloucester's Prize.

Staff v. Students Match. 10th September.

This annual match for the E. B. T'Anson Challenge Cup was shot in very pleasant conditions, although it was banished to Short Siberia for the short range. The Students' team lost a lot of ground at 300, and just failed to make this up at 600, the match resulting in a narrow victory for the Staff team. The Staff: 390, 363, **753**. The Students: 375, 375, **750**.

The Kent Bronze Cross was awarded to C. L. Brewer for his performance in this match, and the highest score of the day was made by Mr. G. L. Bourne.

During the season A. M. Ward, A. M. Pollock, R. S. Thompson, and P. N. Riddle have shot for the United Hospitals, and A. M. Ward for the University. At the Annual General Meeting of the United Hospitals Rifle Club, A. M. Pollock was elected Captain for the season 1961-1962. A.M.W.

Rugby Club

23rd September

1st XV v. K.C.S.O.B. (A). Lost 8-5.

Due to some hard and well-attended pre-season training Bart's fielded a comparatively fit side and although without Jennings, their captain, pressed K.C.S. hard from the start. A good K.C.S. try and penalty goal in the second half put Bart's 8 points down, but they fought back well and Knox took a pass near the line to score a try which Harris converted. This was quite an encouraging start to the season with the line working well, Stevens tackling hard and Smart outstanding among the forwards, while Niven's fielding and kicking were all that could be desired.

Team: P. A. R. Niven, R. V. Jeffreys, J. F. Stevens, A. T. Letchworth, S. G. Harris, E. D. Dorrell, A. P. Ross, B. R. H. Doran, B. H. Gurry, A. J. S. Knox, D. J. Delany, M. M. Orr, C. M. Cripps, C. J. Smart, D. Goodall.

24th September

Streatham 7-a-sides.

This was an enjoyable afternoon during which Bart's were beaten in the 1st round by an eventual finalist, Oxford Thursday, 18-8. In the second half Ross made up a deficit of 15 points with a good try which Harris converted. Another Bart's try was counter-balanced by a drop goal by Oxford Thursday. The Wasps eventually won the competition, which included some good sevens.

Team: S. G. Harris, P. A. R. Niven, P. M. Perry, A. P. Ross, M. M. Orr, B. H. Gurry, A. J. S. Knox.

24th September

1st XV v. Reading (A). Lost 13-8.

Taking advantage of a slow Bart's start Reading began this evening game with two goals and a try in the first 20 minutes. Bart's never really combined as a team in spite of improvement in play as the game continued. In the second half Goodall and Letchworth scored, Harris converting the second try. However, with Orr injured on the wing, Bart's failed to gain more of the 13 points required, and the game ended rather disappointingly in the descending gloom.

Team: P. A. R. Niven, R. V. Jeffreys, E. Sidebottom, A. T. Letchworth, S. G. Harris, E. D. Dorrell, A. P. Ross, R. J. Shearer, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, M. M. Orr, C. M. Cripps, C. J. Smart, D. Goodall.

30th September

1st XV v. Harlequin Wanderers (H). Lost 22-9.

Bart's kicked off against a strong Wanderers' XV in front of a comparatively large crowd at Chislehurst. The Bart's forwards worked hard and with the back row and outsiders tackling well held the lead three times with three good penalty goals from Harris. 20 minutes from the end Bart's led 9-8, but the Wanderers' superior skill and experience broke the Bart's defence with two tries, a goal and a dropped goal. In spite of this Bart's fought to the final whistle under Jennings, who was playing for the first time this season.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. G. Harris, E. D. Dorrell, A. P. Ross, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, M. C. Jennings (capt.), C. J. Smart, D. Goodall.

7th October

1st XV v. Woodford (H). Lost 8-9.

On a perfect Chislehurst pitch, Woodford kicked off and, with a very quick back row, successfully pinned down the Bart's outsiders and scored from a line-out. Harris, for Bart's, replied with a penalty and at half time, after a Woodford penalty, the Hospital were 6-3 down. In the second half a quick heel gave Woodford another try on the blind-side, after which Bart's pressed strongly, Smart scoring from a cross kick by Harris, who converted. Unfortunately, some more good Bart's play failed to bring another score. Gurry hooked well with Doran prominent in the loose.

Team: P. A. R. Niven, R. V. Jeffreys, E. Sidebottom, A. T. Letchworth, S. G. Harris, E. D. Dorrell, D. Chesney, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, M. C. Jennings (capt.), C. J. Smart, D. Goodall.

14th October

1st XV v. Old Millhillians (A). Won 17-10.

The burden of having lost their first four matches was lifted from the shoulders of St. Bartholomew's Hospital by O. Millhillians who lost at Headstone Lane by two goals to a goal, a dropped goal, two penalty goals and a try.

Some fine kicking by Harris soon put the Hospital into a winning vein and with the forwards linking well with the backs, Bart's were soon well ahead with a dropped goal by Stevens and a determined try by Jeffreys after a good handling movement. In spite of two quick goals by Old Millhillians, after another

long handling movement Knox scored an unconverted try. Chesney and Dorell played outstandingly together at halfback, and there was a unity in the team which hitherto had not been apparent.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. G. Harris, E. D. Dorell, D. Chesney, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, M. C. Jennings (capt.), C. J. Smart, D. Goodall.

Soccer Club

St. Bartholomew's Hospital A.F.C. v. Swiss Mercantile College.

Saturday, 7th October Lost 3-4

This, the opening game of the season, provided both interesting and useful football. The Swiss are always a skilful side, and yet Bart's quickly got on equal terms with them. P. Herbert, a talented Freshman, soon showed his qualities and worth. He was instrumental in most of the Bart's attacks along with Iregbulem. The Swiss scored early on but Iregbulem equalised, and it needed two quick goals against Bart's to change the tempo. However, a first-class individual effort by Herbert helped to keep Bart's in the hunt when he scored his second goal. Bart's did well in the second half to hold the Swiss, because our goalkeeper, N. Jones, was badly injured and had to leave the field.

Bart's goals: L. Iregbulem, P. Herbert (2).

Team: B. Perriss; B. Hore; C. Vartan; P. Ball; P. Savage; M. Hudson; E. Manson; P. Herbert; L. Iregbulem; H. Phillips; N. Davies.

St. Bartholomew's Hospital A.F.C. v. The Chartered Accountants.

Wednesday, 11th October Lost 2-7

Bart's were lucky to hold a strong Accountants' side to a one goal lead at half-time. However, after the interval the more skilful side scored six more goals, Bart's in reply scoring two. The only other incident in the second half was a missed open goal by Bart's. Hope and Savage, backbone of the defence, worked hard to keep the Accountants down to a five-goal lead.

Bart's goals: P. Herbert, L. Iregbulem.

Team: B. Perriss; B. Hore; C. Vartan; P. Ball; P. B. Savage (capt.); M. Hudson; E. Manson; P. Herbert; L. Iregbulem; H. Phillips; N. Davies.

St. Bartholomew's Hospital A.F.C. v. The London Hospital.

Saturday, 11th October Lost 3-6

Our first league match, against last season's winners, started at really quick pace. Savage marshalled the defence competently, and D. Prosser was a welcome return in the full back position, keeping the fast moving London attack at bay. Eventually London opened the scoring with a fine goal; but Bart's replied with an even better one headed by P. Stanley. After half-time the London scored four goals in quick succession, but, apart from this lapse, Bart's were nearly as sure as their opponents and scored two more goals — both by Iregbulem.

Team: B. Perriss; B. Hore; D. Prosser; P. Ball, P. B. Savage (capt.); M. Hudson; E. Manson; P. Herbert; L. Iregbulem; H. Phillips; P. Stanley.

Hockey Club 1961

With last season closing on the pessimistic note of losing Hugh Walker, we were very relieved to find several recruits to the club among the Freshmen. Of these W. Carleton and O. Townsend were the most promising, and have played several games for the 1st XI. Of the others, most of them have yet to have a proper chance to demonstrate their prowess, but now that we are able to raise a 2nd XI several extra fixtures are being arranged.

The other addition to the side is S. Thomas, who captained Pembroke College, Cambridge, last season. He steps into Walker's vacated position at centre half, and provides a highly effective hub to the defence. It is also refreshing to have someone capable of scoring off a short corner at last!

After a little dilatory training the season opened, away to R.N.C. Greenwich. In spite of lack of any real cohesion in the side we were 2-0 up at half time, Kingsley and Billington scoring one between them, and De Silva netted a good narrow angled shot.

In the second half, our lack of fitness became increasingly manifest. But somehow we prevented our opponents scoring, mainly due to Thomas' ubiquitous play, well supported by Flower and Robertson.

Once the opposition slammed the ball between our posts from a shoulder-high pass; luckily this was disallowed. Nevertheless, it was a game we were lucky to win.

The following week we were at home to University College. By half time we were 2-1

down; Glover scored for us, using his weight and speed to devastating advantage. Their second goal was a lucky shot: one of their forwards' shot was well blocked by Thomas, the ball became gently airborne from the impact of sticks and lofted directly over Phillips' outstretched arm into the top of the net.

In the second half we looked like scoring several times, but somehow never did until the last few minutes and then unfortunately not before our defence had suffered its accustomed end of game collapse. In the last ten minutes, the ball thudded into the back board four times; thus we lost 6-2.

Saturday, 24th October, on a fine sunny afternoon, we took on Beckenham II, on a rotten, undersized and uncared for pitch at Catford. Glover was off to a very vigorous start, but almost directly afterwards our goal post was hit off a short corner. With this behind us we settled down to some of the fastest and most attacking play Bart's have produced for several years. Our forwards dominated the opposing half most of the time, and by the break we were 4-0 up. Kingsley scored twice, once by following up a loose ball which the goalkeeper had "fluffed".

De Silva scored another with a good narrow-angled shot, and Thomas cracked one in off a short corner.

BOOK REVIEWS

Clinical Electroencephalography by L. G. Kiloh, J. W. Osselson. Butterworths 1961.

Although the human EEG has been widely used for twenty to thirty years it still remains a bit of a mystery to most clinicians and students. In many ways it has been a disappointing pastime. Its magnificent promise has hardly been fulfilled. Only rarely can it be said to play a vital role in diagnosis. This is not to deny its usefulness when assessed with the much more important aspects of history taking and clinical examination. One can safely assert that to obtain the maximum information from an EEG the clinical and electroencephalographic aspects must be closely correlated. Unfortunately, the electroencephalographer often sits in splendid isolation watching endless paper roll under the pens and after submitting his report all is silence. He has to be careful, perhaps, to err on the side of finding something rather than missing anything. A "doubtful" focus sends the distant clinician chasing what may turn out to be a red herring. Yet chase he must. A normal EEG in the patient with intermittent grand mal or in whose brain lurks a tumour, can be still more

After the interval Beckenham scored twice before Thomas scored the final goal, bringing the score to 5-2 in our favour.

The 2nd XI turned out twice but were defeated on both occasions.

Women's Hockey Club v. School of Pharmacy. Wednesday, 18th October Won 5-2

This was an encouraging start to the season. By half time the score was 2-1 to Bart's. The defence played well together and seemed to be more promising than last season. The forwards need to pass the ball sooner and would not have been so successful against a stronger defence.

Our new players showed much promise and we hope this will be maintained. Goals scored by S. Minns (3), S. MacDonald (2).

Team: C. Lloyd; E. Evans; A. Myers; J. Thoroughgood; J. Evans; A. Coates; G. Johnson; S. MacDonald; J. Young; S. Minns; V. Nash.

Christmas Cards

Christmas cards, using the design on the *Journal* cover, are now on sale, price 3d. each (3s. 6d. per dozen, post free). They are available in the Library, the Student's Cloakrooms, the Nurses' Home, or by application to the Manager of the *Journal*.

misleading and lead to a false sense of security. The realisation of the limitations of EEG will provide a healthy approach to the subject.

There is yet another trouble—EEG can be so boring to the student. In this book Kiloh and Osselson have managed to make it interesting. Their concise accounts of the findings in all kinds of disease affecting the nervous system are straightforward and realistic. The student should perhaps concentrate first on the sections directed to epilepsy and cerebral abscess—two conditions in which EEG is most valuable. The EEG changes in psychiatric disorders, though interesting, are of secondary importance. This book stimulates the appetite, but like all books on EEG is better digested in small helpings. Each section would be best read as the student observes a particular disease in the hospital ward. Do you know the EEG changes in portal systemic encephalopathy, in disseminated sclerosis, in pernicious anaemia or in petit mal? A five-minute read will tell you all you need to know about each of these. Although literature of EEG is far too voluminous, the authors have skillfully trimmed their book to a neat, tidy and recommended size. F.L.

McIndoe: Plastic Surgeon by Hugh McLeave. 231 pp. Frederick Muller Ltd., 1961. 21s.

To publish a full-scale biography of an individual within a year of his death suggests that the subject is of great interest to a wide public, and is so seldom achieved by medical men that this book can be looked upon as a journalistic scoop. Since it is the work of a journalist, and is also a fine example of "giving the public what it wants", it has proved successful as a publishing venture, and was reprinted within a few months of issue.

The name of McIndoe will always be associated with plastic surgery and East Grinstead, his work on the "guinea pigs" having received world-wide publicity. The story of his life is graphically told, omitting little, and certainly not glossing over the subject's faults. This book will distress some readers, but it is obviously a true picture. It cannot harm the subject's reputation as a plastic surgeon, but it will leave readers with a very poor opinion of McIndoe the man.

The definitive biography of an individual should be the result of mature judgment of his life and work, with an appreciation of his impact on his contemporaries and on his profession. To delay writing such a biography until it is impossible to collect impressions from relatives, friends — and enemies—is to risk painting a false picture. To rush into print with intimate details concerning persons still alive may seem unethical and rather sordid, but it can prove successful—if success is measured in terms of hard cash.

It may well be that Sir Archibald McIndoe will never be the subject of another biography in book form, but we would welcome an authoritative study of him as a plastic surgeon. Few of us would appear entirely without fault in a biography analysing one's very thoughts and deeds, and the subject of this biography has been investigated from every possible angle, by every means known to a science correspondent.

J.L.T.

An Introduction to Clinical Medicine by R. R. H. Lovell and A. E. Doyle. Edward Arnold. 12s. 6d. 115 pp.

The authors of this short book have set out to provide a clear account of how to proceed when faced by a patient for students about to enter the wards for the first time. They have therefore largely limited themselves to a brief account of the technique of history taking and a simple description of how to make a physical examination. They indicate the type of information and physical signs to be sought, but only describe specific findings where these will serve to explain the reasons for the procedures described. The book is therefore of limited usefulness, but it is thus ensured that the essentials of case taking are not obscured for the beginner by descriptions of specialised investigations or by lists of signs and symptoms. It is systematically laid out and easily read, and provides a useful guide for those about to start their clinical training.

J.R.

Aids to Forensic Medicine and Toxicology by W. Bently Purchase. 13th Edition. Bailliere, Tindall & Cox. 12s. 6d. (Students Aids.)

Forensic medicine occupies little time in the medical curriculum and seldom seems to form the basis of a written question in finals, but in vivas a foren-

sic question may well pop up and prove the downfall of the unwary. Sir Bently Purchase's little book is well worth reading through to avoid such an embarrassing situation. The book is divided into three sections, theoretical and practical aspects of the law in relation to medicine, and toxicology. The first section should be read by all doctors before or soon after they are qualified as it contains details of their medico-legal duties and advice on procedural matters such as court appearances.

The second section deals with such matters as estimation of time of death, the difference between salt and fresh water drowning and a host of other good viva topics.

The section on toxicology should help with questions on therapeutics or general medicine as well as forensic medicine. The effects of various poisons are well described, together with their diagnosis and treatment. In short, this little book may be recommended to the finalist as comprehensive, brief, and to the point, and to the qualified man as a handy reference.

A.J.B.M.

Physiology for Nurses by Deryck Taverner, M.B.E., M.D., F.R.C.P. English Universities Press, Ltd., 12s. 6d. (Modern Nursing Series).

To open a new book and sample it is always a pleasure. The message of the author should come through in the feel of the book, the type face and the look of the diagrams, as well as in the text. Why has he written it? To whom is it addressed, and in what style does he speak? One opens on the first chapter of Dr. Taverner's book, and reads thus:—

"We live in a hostile world, and our bodies are wonderfully adapted for survival by means of an immensely complex system of co-ordinated processes. Living organisms strive always to maintain their internal conditions stable in the face of a constantly changing external environment, and this, indeed, is the main essential for individual survival."

It can be seen at once that Dr. Taverner is an enthusiast, and that he has an idea. He is going to tell his audience how the body, that hereditary Conservative, so successfully resists for so many years the efforts of hostile Nature to change its temperature, its pH, or its constitution. One sees, too, that he is addressing adults in an adult language.

The facts of physiology are applied consistently to medicine and nursing throughout, but not at such length as to unbalance the book. A good example of his method is the chapter on the heart and circulation. This comprises a section on haemodynamics; a plan of the circulation, foetal and adult; the cardiac cycle; the pulse and its changes; arterial blood pressure and how to measure it; the way the circulation is controlled and adapted, with description of special areas like the brain, myocardium, muscles and skin; how the blood volume is maintained, and how it is restored after haemorrhage.

All tutors should read this book, and will learn something from it; for instance, how many of us know that the tissue fluid is renewed every 4 or 5 minutes, and that in active organs the turnover is faster? The diagrams are original and thought-provoking and, although a few may fail to make their import plain, their fresh appearance is most welcome.

Whether the publishers are right in believing that student nurses will buy separate textbooks of anatomy and physiology remains to be seen, but it is to be hoped that this interesting and well written book has the audience that it deserves.

W.E.H.

By courtesy of the "Nursing Times"

Orthopaedics for Nurses Edited by M. C. Wilkinson, F.R.C.S., and G. R. Fisk, F.R.C.S. Faber & Faber. 37s. 6d.

This is a book of many sections, written mainly by the editors, but including a number of chapters by specialists in their own field, and showing the variations in viewpoint that accompany such an arrangement. It provides a reference textbook for nurses on all conditions that result in bony deformity or lack of free use of the skeleton, but as it is written for nurses it might be expected that the emphasis would be on nursing.

In many chapters this is completely omitted except for trite phrases like "good nursing" or the rendering of the skin and hands "sterile". Description of the application of traction is confined to one method, which is not universally used, and little subsequent nursing care is given of patients having either skin or skeletal traction.

The criticism of lack of practical nursing details can certainly not be levelled at Dr. Gutman's excellent chapter on the care of patients suffering from spinal injuries. This and the chapter on cerebral palsy seem to the reviewer the most valuable in the book. Both clearly show how good management and care can, in many cases, enable these patients to lead a full and worthwhile life.

The care of children with skeletal tuberculosis is dealt with very fully and Miss Pryke gives simple and helpful suggestions for looking after children in a long stay unit though we trust these cases are fast diminishing in number.

The production of the book is pleasing, the print and setting attractive. There are many photographs and clear illustrations which are well chosen.

R.F.C.

Symptoms and Signs in Clinical Medicine by E. Noble Chamberlain, 7th Edition. John Wright & Son Ltd. 45s.

This is a further edition of a long-established textbook for the students' introduction to signs and symptoms in medicine. There are a number of innovations which help to keep the book up to date with modern practice, in particular, brief descriptions of the more elaborate, but much used investigations that are part and parcel of the present hospital diagnostic equipment. There are many new photographs and diagrams to complement the text in the description of specific points of physical examination, which are well-chosen. An introductory historical chapter is included for the first time, as are a number of small portraits in the remainder of the book. Whilst not strictly necessary, they do help to enliven the book. The section on clinical pathology and biochemistry is inadequate for most student needs and might well have been left to be treated more fully in the appropriate books.

A comprehensive glossary and index complete an excellent book which should be on every student's list at the start of his clinical career.

D.M.M.

Central Sterile Supply. A Nursing Times Publication. 4s. 6d.

This is the first publication dealing with Central Sterile Supply departments in Great Britain. The Principles involved are set out in the first half of the booklet. This is an excellent introduction and explanation for those who are wondering what all this Central Supply business is about. After this section there is a certain amount of repetition and much detail of interest only to those actually involved in the setting up of such a department.

None of the writers is directly dealing with a hospital with Medical School attached. Teaching of these new methods to Nursing Staff is mentioned as important, but this is not wide enough. Unless this teaching is extended to cover ALL users of sterile equipment, many of the advantages of such a system will be lost.

The whole booklet is of value at this time but as Dr. Darmady suggests in his foreword, many of these ideas have not yet stood the test of time.

S.M.A.

Pathology of Tumors by R. A. Willis, 3rd Edition 1960. Butterworths Publications. Pp. 1002

This book is too well known from earlier editions to need a lengthy commendation, nevertheless, the appearance of a new edition after an interval of 7 years is an important landmark in medical publishing. It is not difficult to understand why Professor Willis' great work has been so widely acclaimed throughout the world, nor why its author's views are so frequently quoted by writers on many aspects of tumour pathology. In the first place, Professor Willis has devoted a lifetime to the study of tumours and he therefore writes with authority, born of experience. Secondly, he has a most fortunate gift of clear expression and does not hesitate to state his own views with lucidity. It is the combination of these two assets that makes this book so valuable as a work of reference, not only for practising pathologists, but for all with an interest in neoplastic diseases.

In this third edition, all chapters have been revised and some sections have been rewritten. Some idea of the extent of this revision can be gained from the list of subjects in the author's preface to this edition which have been rewritten or had additions to the text: "the experimental production of tumours, tumours of animals, carcino-sarcoma, epithelial tumours of the tibia and other long bones, the congenital epulides, bronchial carcinoma (especially causation, structure and smear diagnosis), syndromes with pancreatic islet tumours, arrhenoblastoma, dysgerminoma, the smear diagnosis of uterine cancer, infantile testicular carcinoma, haemangiopericytoma, chemodectomas, embryonic hepatic tumours, and lesions of the vascular system associated with malignant tumours." One might add further topics to this list, for instance, in Chapter II, H. N. Green's immunological hypothesis of the nature of cancer has been succinctly summarised. In spite of the incorporation of much new matter, the size of the book has increased by only 5 pages as a result of careful pruning of the text and slight reduction in size of some of the figures.

The references at the end of each chapter are a valuable feature of this work and in this edition,

800 further references have been added. As Professor Willis points out, this number represents only a fraction of "the huge literature of the last 7 years", but he hopes that the references chosen "are fairly representative of the best recent work" and he has wisely observed a rule of including only references to works which he has himself consulted.

This new edition of "Willis" will surely be welcomed then, by medical men the world over. One may not always agree with the author's views on controversial matters, but at least one can be certain what his views are and that they are worth respecting.

A.G.S.

The Scientific Basis of Medicine, Annual Reviews 1961,
Pp. 335, 40s.

This volume consists of 20 lectures organised by The British Postgraduate Medical Federation and delivered between October, 1959, and March, 1960. It succeeds eight annual publications under the title of Lectures on the Scientific Basis of Medicine, and contains an index of the contents of these volumes. The new title of Annual Reviews is a more suitable description of the contents, for each lecture is given by an established authority actively engaged in research on an aspect of medicine in which recent advances have been made, and therefore consists of an accurate and up-to-date review. It is often difficult to assess the present state of a subject by reference to the general literature, and

reviews like these are most useful, particularly as they cover such a wide variety of topics.

Of considerable general interest are the lectures by Sir Lindor Brown on "Physiology, Medicine and the Basic Sciences", and Sir Roy Cameron on "The Adventure of Research". Clinical problems such as fever and pyrogens by Sir George Pickering, and liver disease by Professor Sherlock and Dr. Harkness make stimulating reading. A number of aminoacid metabolism by Professor Milne and Dr. Dagleish, magnesium metabolism by Dr. Fourman, diabetes by Professor Gray, plasma lipids by Dr. James, blood enzymes by Dr. Wilkinson, and the lectures are devoted to biochemistry including biochemistry of multiple sclerosis by Professor Thompson and injury by Dr. Stoner. There are also reviews on radiation and skeletal damage by Dame Janet Vaughan, interferon by Dr. Isaacs, and immune cellular reactions by Dr. White. The value of the new technique of autoradiography is well described by Dr. Lajtha. Epidemiology is represented by the lecture of Dr. Doll on leukaemia, genetics by Professor Pontecorvo on genetic analysis via somatic cells, and pharmacology by Dr. Vaughan Williams on the action of drugs on the heart.

For anyone interested in one of these subjects, or who wishes to obtain a general idea of the lines along which medicine is advancing, this and the subsequent volumes will prove to be of great value.
G.H.F.

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL



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Editorial

A RECENT DEBATE in the House of Lords on the Medical Services aired many of the old clichés and tired platitudes known only too well to members of the profession. The miscalculations of the Willink Commission and the present need for a ten per cent increase in student doctors are now old history. Apart from a ritual ventilation of the problems their Lordships (and their Ladyships) had little concrete to add. One of the questions that remained unasked was where are we going to find them? This is a matter to which, for a moment, we might well turn our thoughts.

The medical profession has always been, loosely speaking at any rate, a conservative one. To the newer kind of man, demanding high rewards for little work, this could prove off-putting. So, perhaps, we ought to make ourselves more attractive — professionally speaking, that is. In a world whose values are rapidly being undermined by the slogans of Madison Avenue, where virtues like duty, vocation and service are made to sound like an old music-hall joke, perhaps we too ought to concern ourselves with the status symbol and the right brand image. Handled properly the stethoscope should be a status symbol par

excellence. It is all a matter of handling.

A letter received recently by the Dean makes one wonder if things have not gone rather wrong somewhere; and if the general impression of a medical college is not rather distorted. Written by a sixth form public schoolboy seeking admission it asks the following: —

"1. Games Facilities. I am interested in playing golf. Would it be difficult to get to a reasonable club? How far is it, and what does it cost? 2. Music facilities. Are there any facilities available for learning the piano?"

The Dean might have replied that clock-golf whiled away the weary hours in Out-Patients, that the Abernethian Room was large enough to swing a masher in, and that the senior surgeons of the hospital frequently offered free extra-mural instruction in approach, grip, cut and slice. "Music While You Operate" is a great favourite in the theatre where a large concert grand is always at students' disposal. Violin stringing a speciality. If the Dean did not reply in this vein (and we have no reason to presume that he did) might not another possible ten per cent have given up thoughts of a medical career in favour of the green and the green-room?

Advertising has always been frowned upon by Medicine. But when it comes to recruitment just how high-principled can one afford

Editorial—Continued

to be? The Army has surely shown the way—"JOIN THE ARMY AND SEE THE WORLD." Why not—"BE A DOCTOR AND GET THE INSIDE STORY"? Or something with more subtle implications like "DOCTORS READ THE TIMES", or something flattering, "WHICH TWIN IS THE SURGEON", embarrassing, "SOMEONE ISN'T A DOCTOR", or even a direct pointer in the Kitchener tradition, "WHOSE FINGER ON THE PULSE?" With the psychologists on our side everything is possible; there are no emotions we could not exploit—the basic ones best of all. The time might even come when the G.P. could again be as much a friend of the family as the "Man from the Pru". At present he is in jeopardy of becoming a name on the list in the post office, or a service telephone number.

Means would have to be devised for coping with the vast influx of recruits such advertising campaigns would encourage. Correspond-

Engagements

BANWELL—BOWER.—The engagement is announced between Gerald Stuart Banwell, F.R.C.S. (Edin.), and Miss Gillian Bethune Bower.

FOX—NORTON.—The engagement is announced between Dr. Geoffrey Charles Fox and Miss Jill Pauline Norton, S.R.N.

GARROD—ONSLow-FREE.—The engagement is announced between Dr. James Anthony Garrrod and Miss Sally Anne Onslow-Free.

GLYN—CLIVE.—The engagement is announced between Dr. Alan Glyn, M.P., and Lady Rosula Caroline Windsor Clive.

WHITTARD—DAUNCEY.—The engagement is announced between Dr. Brian Ralph Whittard and Dr. Shirley Frances Dauncey.

Marriages

BRISTOW—SWIFT.—On 29th July, Ronald Frank Bristow to Julia Ann Swift.

RACK—LAGEARD.—On 8th July, Henry D. Rack to Violette M. E. Lageard.

Births

CHARLTON.—On 21st October, to Jennifer (née Price), wife of Dr. Clive Charlton, a son (Simon Rupert).

GODRICH.—On 28th October, to Chloe (née Mathie son), and Dr. John Godrich, a son (Jeremy).

SINGER.—On 9th November, to Mary (née Hilder), and Dr. Geoffrey Singer, a son (John Geoffrey), brother for Alison, David and Claire.

Deaths

GRIFFITH.—On 29th October, Adrian Nicholas Griffith, aged 33. Qualified 1952.

KING.—On 21st October, Lt. Col. Harold Holmes King, C.I.E., M.B., B.S. Qualified 1908.

ence courses are the obvious answer. "Learn to be a DOCTOR in six easy years" . . . "study by your own fireside." "Interesting cases brought to your very door by Hospitals on Wheels Inc.—Our motto 'Keep the Patient Moving'." " . . . Deep-freeze specimens obtainable from your nearest delicatessen," etc. The possibilities of such a scheme are infinite.

But as readers will no doubt have observed there is one snag to all this. Our aim must be to encourage people to become doctors and not, unnecessarily, to become patients. An over-awareness of sickness and its needs could have disastrous results. The man in the street, let it be remembered, is only a doctor at heart in so far as he is a potential patient.

Flippancy apart, the reasons for adopting a medical career are hard to define, and hard to publicise. Often they are personal; always they sound trite when given verbal expression. Once the Government has made up its mind how to accommodate more students, it is then up to the students to find themselves. Parkinson's Law will no doubt do the rest.

Appointments

University of Manchester

Dr. P. J. Collard, who held the chair of bacteriology in the University College of Ibadan, Nigeria, has been appointed professor of bacteriology and director of the department of bacteriology, and will take up his duties in Manchester in April, 1962.

Change of Address

Surg.-Lt. D. A. LAMMIMAN, R.N., H.M.S. Raleigh, Torpoint, Cornwall.

Calendar

DECEMBER

Wed. 27 to Fri. 29 "Pot Pourri" at the Cripplegate Theatre.

Sat. 30—On duty: Dr. G. W. Hayward
Mr. A. W. Badenoch
Mr. R. W. Ballentine

JANUARY

Sat. 6—On duty: Dr. A. W. Spence
Mr. E. G. Tuckwell
Mr. T. B. Boulton

Sat. 13—On duty: Medical and Surgical
Units

Mr. G. H. Ellis

Sat. 20—On duty: Dr. R. Bodley Scott
Mr. A. H. Hunt
Mr. F. T. Evans

Sat. 27—On duty: Dr. E. R. Cullinan
Mr. C. Naunton

Morgan
Mr. R. A. Bowen

MISS KATHLEEN TURNOCK

Miss Kathleen Turnock, on 31st October, left us to retire to her newly-acquired home in the country—the countryside she loves so much—after many years of devoted professional service to the Hospital.

Miss Turnock was in the unique position of having been awarded the prize of books at the end of her first year, and also the Gold Medal at the completion of her training in 1931.

Then followed her appointments as Theatre Pink, Night Sister, Sister of Rahere and Sister of Lawrence. She had to leave for a short period, but returned to us in 1939 as second Assistant Matron. Shortly after her return, she went to Hill End, where she spent many happy years. In 1949 she was appointed Deputy Matron, the post she has held until now.

Administration these days in a large teaching hospital such as ours is an arduous task for all concerned; there is so much unseen

work, and, like a snowball, it grows and grows. Miss Turnock, as Deputy Matron, was outstanding in the sympathy and understanding she extended to all. She was ever ready to lay down whatever she was doing and listen and give advice to all who asked for it.

In an age characterized by its lack of standards, perhaps her most valuable contribution has stemmed from her high sense of personal duty, based on those ultimate values which do not change.

We know that Miss Turnock's life in "retirement" will be a busy one, as there is always much to attend to in a house and garden, and village activities will no doubt claim their full share of her time. However, we hope that she will not become so involved with her new life that her visits here will need to be curtailed.

F.O.

Fifty years ago

"It is a platitude to insist that a good teacher *nascitur non fit*; it is equally a platitude to maintain that an eminent clinician with the highest academic distinctions may not be able to teach at all. But, quite apart from these considerations, is not 'examination-medicine' quite different from 'medicine', and may not the more recently qualified man be better able to teach students, because he is more *au courant* with examination wrinkles, and is also nearer the intelligence of his pupils? Of course, in this connection we do not mean any recently qualified man; we mean the exceptional man, who has been qualified a few years only, and from whom the savour of examinations has not yet departed."

"Examiners are drawn from those who are farthest removed from examinations, so that the seniors should be the best teachers to defeat examiners, and examination wrinkles should be unnecessary and useless."

"One may regard the ideal teacher as a man who has advanced sufficiently along the path of knowledge to enable him to plant himself at the meeting point of many cross-roads. Having become familiar with all these paths he is able to direct a timid traveller along any one of them. He has not yet emulated the

older explorer who has followed one of the paths to its termination there to remain; and who whilst knowing the most minute details of the district he has reached, has long since forgotten the steps of the journey he has traversed and the very existence of the cross-roads and the parts to which they lead."

The Abernethian Society

On Thursday, 26th October, 1961, the Society met for a symposium on Degenerative Arterial Disease.

In the chair was Dr. G. W. Hayward, who opened the meeting and introduced the speakers in turn, Dr. D. Weitzman, Prof. G. W. Taylor, and Dr. R. Finlayson.

Dr. Weitzman discussed the role of calculating lipids in the aetiology of atheroma and showed that although there was a high pre- β lipid concentration in atheroma, it was also high in the blood of patients with other diseases. He closed by saying that although oestrogens had been used in the U.S.A. to prevent atheroma, he did not recommend this treatment here.

Prof. G. W. Taylor discussed peripheral arterial disease and described a new technique used to determine the viability of skin, particularly important in cases of gangrene, to decide whether amputation is necessary and where it

should take place. The method involved the patient breathing in 100 per cent. O₂, then by subcutaneous electrodes, if the current was raised 100 per cent., the skin was considered viable.

Dr. Finlayson showed slides of atheroma in 900 post-mortem specimens at London Zoo. His subjects were varied and slides excellent. The common factor in this atheroma in birds and humans was age, but he found no evidence of thrombosis and little evidence of coronary atheroma or myocardial infarcts in the animals.

The meeting was then open for discussion and questions and Dr. Hayward closed by discussing the aetiology of atheroma. Mr. John Goldman gave a vote of thanks to the panel and chairman and the meeting was declared closed.

Christian Union

A new feature has appeared in the life of the Christian Union over the past eighteen months. During this time, missionary societies have been asked for the names of Bart's doctors working with them; the response of these societies, together with a few of our own personal contacts with overseas posts, has enabled us to formulate a type of "Who and Where is Who". Those in touch with our opposite number in "The London" will be familiar already with this very useful type of compilation.

The idea is to utilise this for establishing contacts between members and doctors overseas in order to have up-to-date news about the various aspects of their work and the problems involved. This is to enable the several small prayer groups that have been formed to pray informatively for the missionaries in their areas.

All the information, however, will be circulated amongst members and contributors. In this way it is also hoped to link up the overseas folk with the Alma Mater and with each other in prayer.

Should any ex-Christian Union member like to have this report, and subsequent annual supplements when published, or if they have the names of unattached missionaries whom we are unlikely to have contacted, would they write, please, to the Missionary Secretary.

Notice board observers will have seen the appearance of a new style of poster introduced by the newly-formed Staff Christian Fellowship, it is in respect of their inaugural Open Meeting on 4th December, to be addressed by Mr. Stuart Mawson, and with Mr. John Beattie in the chair. The subject, "The Voluntary Adoption of Faith," seems singularly appropriate to the occasion.

We welcome with great pleasure this Fellowship of the senior and lay staffs of the hospital and sincerely hope it may be the means of fulfilling some of the spiritual requirements of those on the House, in the labs and behind the scenes. We wish it every blessing and believe that it will serve to deepen still further the basic ethical practice of Bart's along the line of its Christian heritage. B.J.S.

Last Month

At the beginning of last month students this side of the meat market were still reminiscing about the quality of the Halloween Ball held in College Hall on the last Friday of the previous month. The occasion was, I am told, as smooth as its organiser. In the light of this success Student Union sponsored Ball Committees would do well to find flair to lighten their stodgier qualities.

The Rugby tour took place during the second week of last month and the Bart's team (which included several preclinicals) won a game and lost two. Often one still hears comments that rugby at Bart's is not what it used to be. This is, of course, true and sad, but since authoritative opinion has abolished the "Rugby Scholarships" there is little that can be done except to sit back and pray for fifteen brains with brawn. Big Brother might have thought twice before demonstrating the stiff competition of the modern medical course by refusing to carry our sporting passengers any longer.

The Nursery plays were in the third week of November. They were smart productions and certainly an evening's entertainment. However, they were perhaps an unfortunate trio in that they were all of a peculiar, odd, modern type—A. P. Herbert, Simpson and Ionesco all thrown together, left one decidedly confused. S.C.-S.

CANCER OF THE LARYNX

By Alan Fuller

This paper will discuss the clinical behaviour of cancer of the larynx and the methods available for its treatment, using for illustration sixty patients first seen in this hospital between 1948 and 1952.

The prognosis of the clinical behaviour of a cancer, the type of treatment selected and the tumour's probable response to treatment are dependent on the site of the tumour, its degree of malignancy, local extension and the absence or presence of metastases.

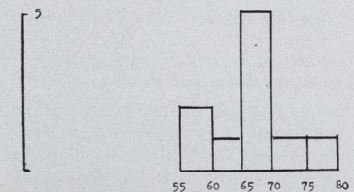
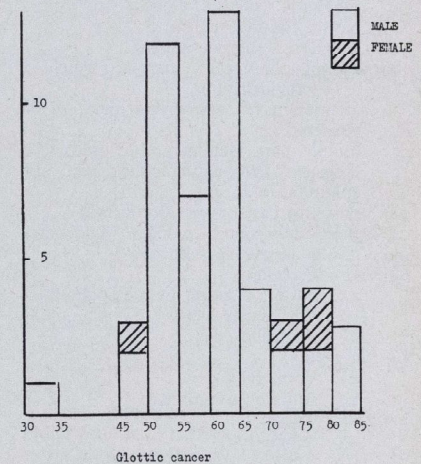
Equally the diagnosis of a cancer will depend on its symptoms which are referable to its site, its size, local spread and possible metastases. It is in this respect that cancer of the larynx may be divided into those that produce early symptoms and those that are silent in their earlier stages.

Tumours of the vocal cord produce their only symptom, hoarseness, early, as they are on the margin of the glottis. Hoarseness lasting more than two weeks, particularly in middle age, demands inspection of the larynx. The growth is characteristically found in the middle third of the cord, frequently extending to the anterior commissure and rarely to the posterior third. It may appear as a fusiform swelling, a granuloma or a warty growth. Keratinisation may be so marked that the mass looks white (the "snow carcinoma"). Local deep extension may be revealed by impaired mobility of that cord. The differential diagnosis at this stage is tuberculosis and syphilis. A chest X-ray and a blood examination for syphilis must be carried out. Coronal tomography of the larynx may reveal a subglottic mass which cannot always be seen on indirect laryngoscopy. The next step is to perform a direct laryngoscopy usually under general anaesthesia although local anaesthesia can be used. This will afford a thorough examination of the larynx and removal of part of the tumour for histological examination.

A carcinoma originating from below the vocal cord will have to extend to a far greater degree to produce interference with the voice. Subglottic growths carry a graver prognosis than cordal growths because they present later, and because lymphatic spread occurs early via the abundant subglottic lymphatics to the paratracheal lymph nodes.

A carcinoma of the supraglottic portion of the larynx arises in a symptomatically silent part of the body. Symptoms are not produced at the site of the tumour until it becomes ulcerated and infected, so producing pain and dysphagia or until its mass is sufficient to interfere with the airway. The presenting symptom in the three supraglottic carcinomas reported here was dyspnoea in two and hoarseness in one.

HISTOGRAM TO SHOW AGE & SEX DISTRIBUTION



Laryngopharyngeal cancer

The laryngopharyngeal margin is also a silent part of the body and symptoms are produced only when ulceration occurs. Lymphatic metastases are often a presenting symptom. The presenting symptoms in ten cases were soreness of the throat in seven patients and one patient each with huskiness, dysphagia and a cervical swelling.

Although no two patients with malignant disease can be said to be identical it is extremely useful in practice to place them in categories dependant on the tumour site, local spread and the presence or absence of metastases. The International Union against Cancer (Paris, 1958) agreed to the following International Classifications of Cancer of the Larynx.

Laryngeal cancer is classified by Regions:

- (a) Larynx, which is subdivided into subglottic (inferior region), glottic (middle region), subglottic (inferior region).
- (b) Laryngopharyngeal margin, which is subdivided into anterior part (suprahyoid part of the epiglottis), middle part (junction of 3 folds, viz. epiglottis, pharyngo-epiglottic fold, ary-epiglottic fold), posterior part (aryepiglottic fold).

Further subdivisions are made in the divisions of the larynx as follows:—

Supraglottic region:

- (a) Posterior aspect of the epiglottis,
- (b) Ventricular band,
- (c) Ventricle.

Glottic region:

- (a) Vocal fold,
- (b) Anterior commissure.

Subglottic region:

- (a) Subglottis,
- (b) Anterior subcommissural region,
- (c) Posterior subcommissural region.

The patients seen in this five year period were distributed as follows:—

Larynx	50
Supraglottic	3
Glottic	38
Subglottic	9
Laryngopharyngeal margin	10

Further information on the extent of the disease is provided in the International Classification by ascribing categories to the local extension of the tumour, the involvement of regional lymph nodes and the presence of distant metastases when present. This is coded as follows:—

Tumour=T

T1=tumour limited to one region and not affecting mobility.

T2=tumour invading one region with limitation of mobility, or tumour invading two regions.

T3=tumour invading more than two regions, or with destruction of the thyroid or cricoid cartilages.

T4=tumour involving a neighbouring structure (organ).

Adenopathy=N

N0=no palpable enlarged lymph nodes.

N1=homolateral, mobile palpable nodes.

N2=bilateral, mobile palpable nodes.

N3=homolateral or bilateral fixed nodes.

Metastases=M

M=metastases at a distance.

Using the above categories of T, N and M the tumour may be placed in the following stages:—

Stage I=T1, N0.

Stage II=T1, N1 or T2, N0.

Stage III=T1, N2 or T2, N1 or T3, N0 or T3, N1, or T3, N2.

Stage IV=T1 or 2 or 3, N3 or T1 or 2 or 3, M or T4.

At diagnosis the patients were distributed as follows:—

<i>Glottic</i>	
Stage I	29
Stage II	8
Stage III	1
<i>Subglottic</i>	
Stage II	5
Stage III	4
<i>Supraglottic</i>	
Stage I	1
Stage II	1
Stage III	1
<i>Laryngopharyngeal margin</i>	
Stage I	2
Stage II	0
Stage III	3
Stage IV	5

Carcinoma of the larynx is most commonly primary, secondary carcinomas are rare. Histologically the majority of cases are squamous celled; adenocarcinomas and basal cell carcinomas are rarities. The degree of differentiation may vary between highly keratinised tumours with cell nest formation and anaplastic growths.

In this series histological confirmation was obtained as follows:—

Glottic cancer	35 out of 38
Subglottic cancer	9 out of 9
Supraglottic cancer	3 out of 3
Laryngopharyngeal margin cancer	6 out of 10

In all cases the carcinoma was squamous celled. The relationship between the cellular structure of the tumour as shown on biopsy and survival of the patient is displayed in the following tables.

Glottic cancer

Histology	1 yr.	Survival	1-3 yrs.	3-5 yrs.	5 yrs. +
No biopsy	1				2
Carcinoma in situ			1	1	2
Well differentiated			1	2	7
Moderately well differentiated	1			2	4
Poorly differentiated	1	1			6
Not graded	1	1	1		3

Subglottic cancer

Histology	1 yr.	Survival	1-3 yrs.	3-5 yrs.	5 yrs. +
Well differentiated	1				
Moderately well differentiated			1		2
Poorly differentiated	1				2
Not graded	1				1

Supraglottic cancer

Histology	1 yr.	Survival	1-3 yrs.	3-5 yrs.	5 yrs. +
Well differentiated					1
Poorly differentiated	1				
Not graded					1

Laryngopharyngeal margin cancer

Histology	1 yr.	Survival	1-3 yrs.	3-5 yrs.	5 yrs. +
No biopsy	3				1
Poorly differentiated			3		1
Not graded	2				

The grading of the tumour from the biopsy does not give an accurate prognosis of the behaviour of the tumour, though highly cellular growths often do well.

The methods of treatment available are radiotherapy or surgery or a combination of both. Radiation treatment can be given by external radiation or interstitial radiation. X-rays are applied externally and are generated from a high voltage source. The depth of penetration through the skin depends on the voltage used at their source. During the period under review this hospital was particularly fortunate to have a deep X-ray machine capable of generating X-rays from a million volt source. The greater the voltage used in generation the greater the depth dose for a given skin dose,

and it is the skin dose that can be tolerated without producing local tissue necrosis or constitutional change that is a major factor limiting treatment. The conventional voltage at this time was 250,000 volts so that a million volt machine was a great advance. It has been found that the patient can accept more radiation if the total dose is fractionated over a period of 30-40 days. In general it is planned to give a tumour dose of 6,000 roentgen in six weeks, but the clinical reaction may involve variation of this target.

Interstitial treatment by radium needles was pioneered in this country by Dr. Finzi and Mr. Harmer of this hospital. In this, under general anaesthesia, a window is cut in the thyroid cartilage and also in the upper part of the cricoid cartilage. Into this window radium needles are inserted vertically in a palisade over the internal layer of perichondrium beneath which lies the vocal cord. About four to six needles containing 2 or 1 mgm. of radium are used. The intensity of radiation emitted by radium falls off by the square of the distance. The vocal cord is nearer the perichondrium of the thyroid cartilage anteriorly than it is posteriorly. Thus it can be seen that the needles must be placed closer together at the posterior part of the window if a uniform dose is to be achieved. After the needles have been placed in position the probable dose rate is calculated by the physicist and the needles are removed when the tumour has received about 8,000 roentgen. This usually takes between 6-7 days. As the needles are implanted deep to the skin the limitation imposed by skin sensitivity does not arise and cartilage also vulnerable to radiation has been removed.

After successful treatment by radiation the voice returns to normal and the vocal cord returns to an almost normal appearance. In fact, if this does not occur within two months of the end of the treatment, it is a sure sign that all is not well. The only change produced in the vocal cord being the development after some months of occasional telangiectasia along its surface.

The surgical procedure used in the treatment of vocal cord cancer is laryngofissure and local excision of the vocal cord. Afterwards the defect in the larynx is filled by granulation tissue, which becomes covered by epithelium and converted to fibrous tissue. A fibrous tissue band develops in approximately the position of the excised vocal cord so that phonation can be obtained by compensatory movement of the

remaining cord across the mid-line. The voice, however, is never normal and may be very poor.

Laryngectomy can be considered the final court of appeal in laryngeal cancer. It involves the removal of the whole larynx, the upper limit must extend from the vallecula, in front of the epiglottis, around the aryepiglottic fold to the back of the arytenoids. The hyoid bone or at least its body must be removed because forward extension to the pre-epiglottic space is frequent. The lower limit of excision is the trachea at least 0.5 cm. below the growth. The pharyngeal defect is closed and the trachea brought forward into the neck as a permanent tracheostomy. The disability after laryngectomy is not incompatible with a normal working life. In this hospital it is usual to ask the patient's employers to write to him before operation offering to keep his job or to find a suitable substitute. Oesophageal speech is acquired by most patients. In this a basic voice-tone is produced by half-swallowing air into the hypopharynx and upper oesophagus and releasing it by a controlled eructation. This tone is acted upon by the various speech moulds (tongue, palate, lips, etc.), to produce speech. Various ingenious artificial larynges have been developed. All of them have to be controlled manually thus limiting the physical agility of the patient. Patients may become depressed after laryngectomy and one patient in this series died as a late result of a suicide attempt. Eighteen months after laryngectomy for a recurrence of cordal cancer, he was found in a park with a bullet wound in his head. This did not kill him and he lived for another four months with a hemiplegia before succumbing to acute broncho-pneumonia.

The results of treating sixty patients are shown in the following tables:—

Glottic cancer: Stage I
Treated by 1,000 Kv. D.X.R. alone.

Cases	Survival	3 years	5 years
14	12 (86%)	9 (64%)	

Deaths to date
8

Cause of death	Survival	3 years	5 years
Carcinoma larynx	9 mths.		
Carcinoma larynx	4 yrs. 2 mths.		
Carcinoma larynx	4 yrs. 5 mths.		
Carcinoma bronchus	9 yrs. No recurrence		
Carcinoma pancreas	5 yrs. 7 mths.		
Myocardial degeneration	3 yrs. 9 mths.		
Congestive heart failure	2 yrs. 8 mths.		
Cerebral arteriosclerosis	10 yrs. 8 mths.		

Glottic cancer: Stage I
Treated by 1,000 Kv. D.X.R. initially recurrence treated by LARYNGECTOMY.

Cases	Survival	3 years	5 years
3	3 (100%)	5 years	2 (66%)

Deaths to date
1

Cause of death	Survival	4 yrs. 4 mths.	No recurrence
Suicide			

Glottic cancer: Stage I
Treated by laryngofissure excision.

Cases	Survival	3 years	5 years
4	4 (100%)	1 (25%)	

Deaths to date
4

Cause of death	Survival	3 yrs. 2 mths.	No recurrence
Congestive heart failure			
Carcinoma bladder	3 yrs. 9 mths.		
Carcinoma bronchus	3 yrs. 6 mths.		
Haemorrhage from chronic gastric ulcer	10 years		

Glottic cancer: Stage I
Treated by Finzi-Harmer radium implant.

Cases	Survival	3 years	5 years
7	7 (100%)	6 (85%)	

Deaths to date
3

Cause of death	Survival	4 yrs. 1 mth.	No recurrence
Carcinoma bronchus			
Carcinoma prostate	6 yrs. 2 mths.		
Carcinoma hepatic ducts	6 yrs.		

One patient developed a carcinoma of the opposite vocal cord five years after treatment, this was treated by radium implant. He survived another five years without recurrence. The patient who died from primary hepatic cancer developed a local recurrence at eight months. This was successfully treated by laryngofissure and local excision.

Glottic cancer: Stage I
Treated by sequence of D.X.R., laryngofissure and radium implant.

Case	Survival	7 years+	D.X.R. followed by recurrence at 10 months. Laryngofissure excision followed by recurrence after 22 months.
1			

Radium implant with survival for 5 years+ with disease present.

Glottic cancer: Stage II
Treated by 1,000 Kv. D.X.R. alone.

Cases	Survival	3 years	5 years
5	2 (40%)	1 (20%)	

Deaths to date
4

Cause of death	Survival	1 yr. 1 mth.	4 mths.	1 yr. 3 mths.	No recurrence
Carcinoma larynx					
Carcinoma larynx					
Carcinoma bronchus					

Perforation D.U. 4 yrs. 2 mths. No recurrence

Glottic cancer: Stage II
Treated by 1,000 Kv. D.X.R. with treatable recurrences.

Cases	Survival	3 years	5 years
2	2 (100%)	1 (50%)	

(a) Recurrence at 11 mths. treated by laryngofissure excision Survival afterwards 6 yrs. 11 mths.

(b) Recurrence at 14 mths. treated by laryngectomy 2 yrs. 3 mths.

Deaths to date
2

Cause of death	Survival	3 yrs. 5 mths.	8 yrs. 10 mths.	No recurrence
Carcinoma larynx				
Cerebral thrombosis				

Glottic cancer: Stage II
Treated by Finzi-Harmer radium implant.

Case 1 Survival 9 years+. No recurrence.

Glottic cancer: Stage III
Treated by laryngectomy.

Case 1 Survival 4 months. Cause of death: Asphyxia due to aspiration of a plug of mucus. No recurrence.

Subglottic cancer: Stage II
Treated by 1,000 Kv. alone.

Case 1 Survival 7 months. Cause of death: Carcinoma larynx.

Subglottic cancer: Stage II
Treated by laryngectomy.

Cases	Survival	3 years	5 years
2	2 (100%)	2 (100%)	

1 recurrence at 6 years 6 months treated by 250 Kv. D.X.R. to neck: survival afterwards 9 months.

Deaths to date
1

Cause of death	Survival	7 yrs. 3 mths.	No recurrence
Carcinoma larynx			

Subglottic cancer: Stage II
Treated by Finzi-Harmer radium implant.

Cases	Survival	3 years	5 years
2	2 (100%)	2 (100%)	

1 recurrence at 6 months, treated by block dissection of cervical glands followed by 250 Kv. D.X.R. to the neck: survival afterwards 7 years+.

Subglottic cancer: Stage III
Treated by 1,000 Kv. D.X.R. alone.

Cases	Survival	4 months and 5 months.	No recurrence
2			

Cause of death
Carcinoma of the larynx.

Subglottic cancer: Stage III
Treated by laryngectomy.

Cases	Survival	3 years	5 years
2	1 (50%)	1 (50%)	

1 recurrence at 2 months, treated by 250 Kv. D.X.R. to neck: survival afterwards 11 months.

Cause of death: carcinoma of larynx.

Supraglottic cancer: Stage I
Treated by 1,000 Kv. D.X.R.

Case 1	Survival	8 years 6 months.	No recurrence.
1			

Cause of death
Myocardial degeneration. No recurrence.

Supraglottic cancer: Stage II
Treated by laryngectomy.

Case 1 Survival 17 years+ No recurrence.

Supraglottic cancer: Stage III
Case 1 Survival 4 days after tracheostomy. Cause of death

Carcinoma of larynx. Laryngopharyngeal margin cancer: Stage I

Treated by 1,000 Kv. D.X.R.

Cases	Survival	3 years	5 years
2	1 (50%)	1 (50%)	

Deaths to date
1

Cause of death Carcinoma epiglottis Survival 1 yr. The surviving case had in addition diathermy excision of the epiglottis two months after completing the course of radiation.

Laryngopharyngeal margin cancer: Stage III
Treated by 1,000 Kv. D.X.R.

Cases	Survival	3 years	5 years
3	1 (33%)	1 (33%)	

3 recurrences
(a) at 6 months treated by pharyngo-laryngectomy (elsewhere). Survival afterwards: 6 months.

(b) at 7 months treated by diathermy amputation of epiglottis. Survival afterwards: 9 months.

(c) at 6 years 6 months given palliative treatment only. Survival afterwards: 2 months.

Deaths
3

Cause of death Carcinoma larynx in all three.

Laryngopharyngeal margin cancer: Stage IV
1 case died before receiving treatment.

Treated by D.X.R.

Cases	Survival	3 years	5 years
4	3 years nil		

Deaths
4

Cause of death	Survival	6 mths.	9 mths.	(2 cases)
Carcinoma larynx				
Carcinoma larynx				

Carcinoma larynx 11 mths.

Survival by Stages of Cancer of the Larynx.

Glottic cancer	Cases	3 years	5 years
Stage I	29	27 (93%)	19 (65%)
Stage II	8	5 (62%)	3 (38%)
Stage III	1	0	

All stages	38	32 (84%)	22 (58%)
Subglottic cancer	Cases	3 years	5 years
Stage II	5	4 (80%)	4 (80%)
Stage III	4	1 (25%)	1 (25%)

All stages	9	5 (55%)	5 (55%)
Supraglottic cancer	Cases	3 years	5 years
Stage I	1	1 (100%)	1 (100%)
Stage II	1	1 (100%)	1 (100%)
Stage III	1	0	

All stages	3	2 (66%)	2 (66%)
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<i>Laryngopharyngeal margin cancer</i>			
	<i>Cases</i>	<i>3 years</i>	<i>5 years</i>
Stage I	2	1 (50%)	1 (50%)
Stage III	3	1 (33%)	1 (33%)
Stage IV	5	0	
All stages	10	2 (20%)	2 (20%)
<i>Cause of death in 37 patients</i>			
Carcinoma larynx			20
Second primary cancer			8
(Bronchus)	4		
Pancreas	1		
Bladder	1		
Prostate	1		
Hepatic ducts	1)		
Heart disease			4
Cerebral thrombosis			2
Haematemesis			1
Perforation duodenal ulcer			1
Asphyxia			1
Suicide			1

LOCKED TWINS

By Humphry Ward

FEW OBSTETRIC TEXTBOOKS fail to discuss this rare and dangerous complication of multiple pregnancy. Its infrequency is such that many obstetricians never see a case in a lifetime. Van Braun in two Vienna Clinics gives the incidence as 1 in 90,000 deliveries or approximately 1 in 1,000 twin births.

The following case was recently seen at Rochford General Hospital:—

Mrs. E. C., a primigravida, aged 23 years, whose estimated date of delivery was 6th September, 1961, was first seen on 10th August, 1961. She was then thirty-six weeks pregnant, but the size of the uterus was that of full term.

11th August. On admission to hospital, her general condition was fair. The mucous membranes were pale. The B.P. was 145/85, with marked oedema of the legs but with no albuminuria. The girth at the umbilicus was 41½ in. There was no hydramnios. An X-ray examination confirmed the diagnosis of a twin pregnancy—the leading foetus was a breech, left sacro-anterior, and the second was presenting by the vertex. The pelvis was normal. The haemoglobin was 65 per cent. A course of "ferrivenin" 100 mgm. daily was given for five days.

Up to this time the pregnancy had been normal. The patient had been given oral iron, but this had failed to prevent an iron-deficiency anaemia—a common complication of multiple pregnancy. She was allowed home after ten days.

It is interesting to note the large proportion of patients who have died from their original disease. So far it comprises more than half those who have already died, but even if none of those surviving die from carcinoma of the larynx it will still be the cause of death in one third. The development of a second carcinoma in the respiratory tract is another feature of note.

I should like to acknowledge the help of Mr. Capps in preparing this paper and would like also to thank the Surgeons to the Throat Department for allowing me access to their notes.

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31st August. On re-admission, the B.P. was 130/90, with moderate oedema of the legs. The foetal positions were unchanged.

4th September. A medical induction (castor oil, soap enema and bath) yielded no result.

9th September. A repeat was also unsuccessful.

13th September. She was given an intravenous Dextrose 5 per cent containing 1 unit "Syntocinon" increasing to 3 units (per pint of Dextrose 5 per cent). This was continued for the rest of the day with poor results.

15th September. A vaginal examination was performed under sterile conditions.

The breech was presenting but was high and above the pelvic brim. The cervix admitted one finger only. The conditions were unsuitable for a surgical induction, so stretching the cervix and sweeping the membranes had to suffice at this stage.

16th September, 8 p.m. The first stage of labour commenced, with moderate contractions every five minutes.

17th September, 12 mid-night. The cervix was two fingers dilated.

7 a.m. The temperature was 99°F. and rose to 100°F. by

10 a.m. There was acetone in the urine. An intra-venous drip was given with one pint Dextrose 10 per cent and thereafter Dextrose 5 per cent.

Progress was fair with strong regular contractions every three minutes, but the relaxa-

tions were not complete, suggesting a "high resting tone" of the uterine muscle.

6 p.m. "Pethilorfan" 150 mgm. and "Sparine" 50 mgm. was given intramuscularly.

8 p.m. Despite the earlier sedation, the patient was very distressed and not resting. Gas and air was given to help control the urge to push. Vaginally a rim of cervix was felt all round.

10.30 p.m. "Pethilorfan" 100 mgm. was given intramuscularly but had little effect on a very restless patient. Both foetal hearts could still be heard. On examination there was extreme tenderness over the lower segment.

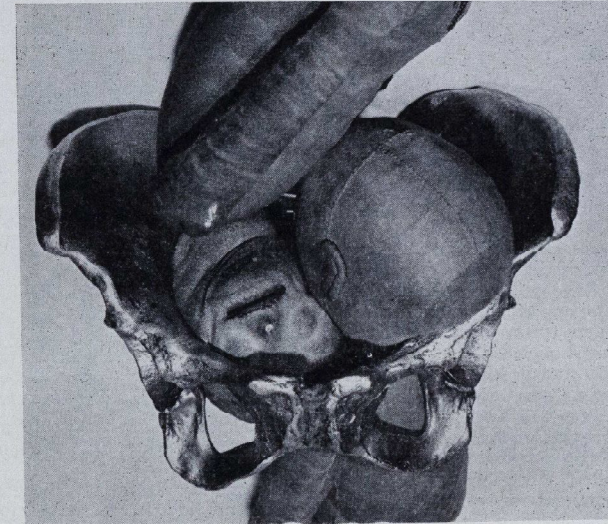
occipito-posterior position. The head of the first twin lay above this and was deflexed with the occiput prominently palpable above the symphysis pubis. The heart beat was absent. The posterior parietal boss of the second twin was below the sacral promontory, but the anterior boss was thrust in the neck of the first foetus.

Delivery of Twin 1.

The second amniotic sac was ruptured artificially. An attempt to disimpact the second head upwards failed.

Two facts contributed to this failure:—

(1) Delivery of the first twin had proceeded too far to permit any upward movement. The



Breech-Vertex locking.

Vaginally, the breech was visible and the cervix was fully dilated. The position was left sacro-anterior.

11.30 p.m. One leg was delivered under a pudendal nerve block. Episiotomy was done.

11.45 p.m. The trunk followed. Attempts to bring down the head failed and under general anaesthesia a diagnosis of locked twins was made. Neither foetal heart could now be heard.

18th September, 12.15 a.m. The consultant arrived.

On examination—the cervix was fully dilated. The head of the second twin lay on the right side of the pelvic cavity in the left

anterior shoulder had escaped from below the symphysis pubis before locking became apparent.

(2) The contraction and retraction of the uterus.

Decapitation of the first twin and fore-quarter amputation with embryotomy scissors was done. The body, minus the right, i.e. posterior arm, which remained connected to the head and neck, was then delivered. It was then possible to displace the head and remaining quarter of the first foetus above the head of the second.

Delivery of Twin 2.

A direct application of Neville-Barnes for-

ceps was attempted but was unsuccessful.

Kielland's forceps were applied to the head of the second twin and the occiput rotated to the directly posterior position. Delivery was completed easily with the Neville-Barnes forceps. The condition of this twin suggested asphyxial death before attempted delivery. The placenta was removed manually.

The twins were female, uniovular and weighed 5 lb. 5 oz. and 5 lb. 7 oz. respectively.

The patient was pyrexial for some days in the puerperium but clinical and bacteriological investigation failed to show any cause for this. She was discharged for home nursing on the fifth day, her condition being satisfactory.

Comment.

Locked twins are rarely predicted before the onset of labour and is usually not discovered until the time of delivery. *Aetiology*: Nicholson⁵ suggests that deficiency of liquor amnii, uniovular twins, deflexion of the head of the leading twin and a large pelvis with small foetuses may all be contributory factors. He points out that there is no single element, but rather a number of conditions which predispose to locking.

Williamson⁷ agrees that there is usually more than one contributory factor.

Holland and Bourne² comment on the predominance of primigravidae in Lawrence's series. There were twenty-three primigravida out of twenty-eight cases. It should be noted that in the present case the patient was a primigravida, the twins were uniovular and that oligohydramnios was a striking feature. The time of rupture of the first amniotic sac was not known because of the absence of any gush of liquor at any time. When the second sac was ruptured artificially there was only a slight trickle of meconium stained liquor. The connection between this condition of oligohydramnios and prolongation of pregnancy to 10 days beyond the expected date of delivery is a point of interest.

In the Lawrence series, the most common type of locking was Breech and Vertex (15). This variety is much more serious than that in which the two forecoming heads become impacted (9), as this is seldom of any consequence as the second twin can usually be pushed up out of the way. In a third type, locking between vertex and a transverse presentation, three cases were recorded. Finally the rarest of all; impacted breeches, when a variable number of limbs appear at the vulva (1).

The foetal mortality was 39 per cent; for the leading twin it was 57 per cent. There were no

maternal deaths. Of the fifteen Breech-Vertex impactions, thirteen were still-born. A successful case was reported by Greig¹, who was able to disimpact the two heads without a general anaesthetic. Both children lived. This may have been a case which in the United States of America is known as "Collision" rather than "locking". (Swann⁶.) In the same article a case of locking in triplets is recorded, in which impaction occurred between the first triplet, a breech and the second, a vertex. All the triplets survived.

Treatment depends on the condition of the leading foetus and the type of locking. The principle is that of disimpaction and assisted delivery of the leading twin where possible. When this is not possible, decapitation of the first foetus is necessary, so that the second may be delivered alive. It appears that traction of the breech and the bringing down of the arms should not be attempted before every effort has been made to disimpact the heads.

A method of delivery is described by Kimball and Rand⁴. The second twin is delivered first using Piper forceps and the breech subsequently by manual flexion. The patient (gravida 3 parous 2) is described as short, light of structure with a normal pelvis. The twins weighed 4 lb and 4 lb. 12 oz. respectively. In her second pregnancy she had a 7 lb. 10 oz. girl.

Williamson advocates Caesarean section if the patient's condition allows. He describes the management in his Breech-Vertex impaction. Caesarean Section has no advantages unless the second twin is known to be alive. Holland and Bourne point out that section is a far safer manoeuvre than a traumatic vaginal delivery.

A case of locked twins is described with some of the causative factors and possible treatment.

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I am most grateful to Mr. W. K. Sutton for allowing me to report his case and for his valuable comments and to Mr. G. S. Tapsall for his assistance. I should like to thank Mr. Harrison of the Department of Medical Photography, for his help.

A CASE OF GALACTOSAEMIA

Being the entry "Proxime Accessit" to the Bentley Prize, 1961

By Sylvia Watkins

Galactosaemia is a rare, inborn error of metabolism. Probably the first published account of the disease was that given by von Reusse in 1908: in a discussion on urinary sugars, he pointed out that galactosuria was rare in comparison with glycosuria and lactosuria. He described a case of "Alimentary galactosuria due to toxic disturbances of the liver". In 1917, Göppert described "Galactosurie mit Milchzuckergabe bei angeborenem familiärem chronischem Leberleiden", and he gave a detailed description of a patient with hepatomegaly, jaundice and galactosuria, who responded well to a lactose free diet.

Both these early descriptions are characteristic of the disease. Typically, the galactosamic infant is normal at birth, but symptoms appear soon after milk feeds are started. Food refusal, listlessness, vomiting, diarrhoea, loss of weight and jaundice (which at first appears to be a prolongation of the neonatal physiological jaundice), are characteristic presenting symptoms. The spleen and liver are enlarged, and the urine is found to contain galactose, and later, amino acids, casts and protein; the amount of galactose present is directly proportional to the lactose intake, and is therefore greater in breast-fed babies than in artificially fed infants (since there is more lactose in breast milk than in cows' milk or dried preparations). If the untreated child survives long enough, he develops convulsions, mental deficiency and nuclear cataracts. Gradually hepatic failure develops, with ascites, oedema, and haemorrhages into the skin and mucous membranes. The most frequent causes of death in the untreated patient are hepatic failure and intercurrent infections. Fortunately, however, the course of the disease may be arrested by giving the patient a lactose free diet. Later in life, the patient often develops a gradually increasing tolerance to small amounts of lactose, though return to a normal diet is never possible.

Case Report: C.J.P.: male infant.

C.J.P. was the second child born to normal parents, following a normal pregnancy and delivery his weight at birth on 24th May, 1960, was 7 lb. 10 oz. On the second day of life he started to vomit, and became jaundiced the next day, his liver being then one finger's

breadth palpable. The following day, the jaundice was deeper, and the liver further enlarged; his urine was found to reduce Benedict's reagent, but not Clinistix. A presumptive diagnosis of galactosaemia was made, and later confirmed by chromatographic studies of his urine. He was put on a lactose free diet, consisting of Wanderlac and sugar, giving 360 calories per day. At one week of age, the galactose had disappeared from his urine, the jaundice had faded, the liver receded, but he was still vomiting, and was not gaining weight. He was admitted to Lucas when three weeks old, weighing 6 lb. 4 ozs.; on examination at this time, he looked small and thin, and had a palpable liver and spleen, but seemed otherwise normal. His urine contained both galactose and amino acids. He developed a Proteus urinary infection, which responded well to treatment with Tetracyclines.

At this stage, severe feeding difficulties were encountered on the Wanderlac diet, and his progress was poor. "Gluc feeds," consisting of Robinson's groats, arachis oil, eggs, vitamins and minerals, were tried, but this gave him such severe gastro-intestinal disturbances that oral feeding had to be stopped for two days, during which he was given intravenous Hartmann's solution and 5 per cent. dextrose.

On 8th July, at 6½ weeks of age, his weight was still only 5 lb. 10¼ oz. Wanderlac was started again: he gained ½ lb in two weeks, but then diarrhoea and vomiting started again. It was pointed out that Wanderlac (which is supposed to be lactose free) actually contained traces of lactose. As an alternative, Nutramigen was tried; this is an enzymatic hydrolysate of casein, with added glucose, fats, vitamins and minerals. He thrived on this extremely well, gaining 3 lb. in four weeks.

He was discharged on 30th August, 1960, aged 14 weeks, on a diet of Nutramigen supplemented by Abidec and Rose Hip syrup. At 5½ months he was taking, in addition to the Nutramigen, groats, beef broth, liver, peas, beans, and carrots; his weight was then 16 lb. 6 oz. When last seen on 2nd January, 1961, he seemed well and happy; there was no evidence of cataract, nor of any of his earlier symptoms.

This, then, is an example of a case of

galactosaemia which was recognised early in life. After an initial stormy period, during which he reacted violently to even minute traces of galactose, he settled down well on a strictly lactose-free diet. He now shows none of the characteristic signs or symptoms of the disease, and there is every hope that he will develop normally in every way, except, of course, that his dietary restrictions must remain.

There have been three other diagnosed cases of galactosaemia in St. Bartholomew's Hospital since 1947. Two of them (S.D. and P.A.), both girls, born in 1957 and 1959 respectively, seem to be well at present, keeping to a strictly regulated diet, based on Wanderlac. S.D., now aged four, is small for her age, and her speech is rather poor, but there is no real evidence of mental retardation, nor of cataract,

either in her or in P.M.A., who is now two. The third patient, J.L., also a girl, born in 1956, is now being followed up at another hospital, but when last seen, she was doing well on diet based on Galactomin.

The symptoms and signs of the four children are summarised in the table below.

DISCUSSION

The main clinical features of galactosaemia may be divided into the following groups for the purpose of discussion: renal, hepatic, gastro-intestinal, and other miscellaneous disturbances.

Disorders of Renal Function

Galactosuria is a finding common to all cases of the disease. Amino-aciduria is usually also present (and was noted in C.J.P., S.D. and J.L.). However, whereas galactosuria appears only in association with a raised serum

galactose, there is no increase of serum amino acids to account for the amino-aciduria. Hence there are two possible mechanisms either of which could explain this phenomenon:

- a congenital abnormality of tubular function, associated with lowered renal threshold for amino acids.
- a temporary inability to re-absorb amino acids, due to the action of some toxic agent on the tubular cells.

If a galactosaemic patient is given galactose for one day only, amino-aciduria does not occur; but if given for longer periods, amino-aciduria appears within 5-6 days, and disappears within a few days of returning to a galactose free diet. These findings exclude the possibility of a congenital defect, in which case the amino-aciduria would be present all the time, regardless of the galactose content of the diet. "We must conclude that the amino-aciduria . . . is a later change induced by the primary abnormality" (Cushworth, Dent and Flynn). The findings in fact suggest that the phenomenon is due to a reversible tubular dysfunction, probably resulting from a toxic metabolic product, several days being required for recovery from the toxic effect. The nature of the supposed toxic agent will be discussed later.

Other renal abnormalities include metabolic acidosis and proteinuria (which disappear on a galactose free diet). However, sodium, potassium and water excretion are not altered, which suggests that either only one part of the tubule is affected, or that the general disturbance is insufficient to affect these basic functions. (Komrower, Schwarz, Holzel and Golberg.)

Hepatic Function

Liver function is severely impaired in untreated cases, the earliest symptom being the persistent jaundice in the neo-natal period. All four children in this series were jaundiced, and raised serum bilirubin levels were recorded in C.J.P., S.D. and J.L. Liver function tests performed in S.D. and P.M.A. gave abnormal results, shown in the Table. All four patients recovered from their jaundice when a lactose free diet was started. This is in accordance with the general rule that galactosaemic jaundice is reversible provided that the diet is instituted within the first few weeks of life. We may conclude that this early hepatic dysfunction is of purely functional origin (i.e. there is no organic pathology in the liver); in this respect it is analogous to the renal disturbances, and may similarly be attributed to a

reversible toxic action on the liver cells, resulting from the abnormal metabolism. However, in fatal cases, post mortem examination often reveals varying degrees of fatty change, cellular degeneration, or even diffuse hepatic fibrosis, indicating that in the later stages of the untreated disease, the hepatic dysfunction is due, in part at least, to structural alterations in the liver, and as such, is irreversible.

Gastro Intestinal Disturbances

Three of the Bart's patients (C.J.P., S.D. and J.L.) presented with vomiting, and all four children refused their food, vomited and lost weight during the early stages. These symptoms cannot be attributed to any pathological lesion. However, Komrower, writing about one of these patients (P.M.A.) stated his belief that "children often refuse substances that are harmful to them, and that 'a matter of taste' may be a diagnostic indication". Just what makes these patients vomit is not clear; but Komrower's extremely sensible view is probably sufficient explanation of why they vomit and refuse their food.

Other Lesions

Untreated cases of galactosaemia are mentally deficient, suffer from convulsions, and sooner or later develop nuclear cataracts. None of the Bart's patients have shown any sign of these complications. The convulsions are thought to be due to a combination of a toxic metabolic effect (similar to that mentioned in connection with hepatic and renal dysfunction) and the severe hypoglycaemia which occurs in these patients, if galactose is present in their food. This hypoglycaemia is probably due to preferential absorption of galactose, and reciprocal inhibition of glucose absorption. (James and Leak.) The incidence of the fits may be reduced by giving large quantities of dextrose. The hypoglycaemia in these patients does not appear to be important in the aetiology of the hepatic and renal dysfunction, since other causes of hypoglycaemia are not associated with disturbances of this type.

There is evidence that in the presence of high experimental plasma galactose levels in rats, galactose metabolites accumulate in the lenses. These are probably responsible for disturbing lenticular metabolism, later resulting in cataracts. This is yet another aspect of the toxic metabolic effect.

This discussion gives rise to a number of questions which must be considered in relation to the clinical, biochemical and therapeutic problems of galactosaemia. What is the nature of the metabolic block? What substance exerts

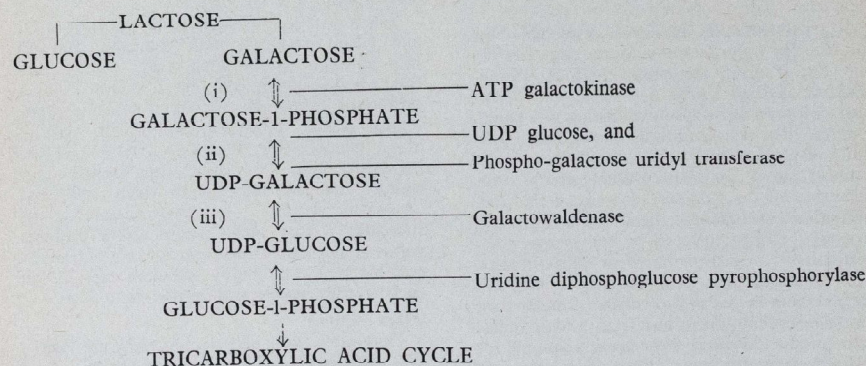
TABLE SHOWING THE SIGNS AND SYMPTOMS IN THE FOUR PATIENTS.

	C.J.P. (Male)	S.D. (Female)	P.M.A. (Female)	J.L. (Female)
BIRTH WEIGHT	7 lb. 10 oz.	6 lb. 4 oz.	7 lb. 10 oz.	8 lb. 1 oz.
AGE OF PRESENTATION	2nd day	9th day	5th day	8th day
PRESENTING SYMPTOMS	Vomiting Jaundice	Loss of weight Vomiting Jaundice	Food refusal Loss of weight Jaundice	Vomiting Jaundice
SYMPTOMS				
Lethargy	✓	✓	✓	✓
Jaundice	✓	✓	✓	✓
Vomiting	✓	✓	✓	✓
Food refusal	✓	✓	✓	✓
Total weight loss	2 lb.	1 lb.	1 lb. 7 oz.	
Time (in weeks) till B.W. regained	10½ weeks	3½ weeks	5 weeks	
SIGNS Enlarged liver	1 f.b.	2 in. below R.C.M.	Enlarged	Enlarged to umbilicus
Enlarged spleen	✓	✓	✓	
INVESTIGATIONS DURING FIRST ADMISSION				
Bilirubin	15.5 mg. %	5.9 mg. %		7.9 mg. %
Galactosuria	✓	5 Gm. %	✓	✓
Amino-aciduria	✓	✓		✓
Thymol turbidity		4.5 units		
Alk. phosphatase		48 K-A units	21 K-A units	
Pseudocholinesterase		37 units		
Haemoglobin	68%	46%		76%
GALACTOSE TOLERANCE INDEX IN PARENTS				
Father		299		163
Mother		107		127
FOOD BEST TOLERATED	Nutramigen	Wanderlac	Wanderlac	Galactomin

a toxic effect on the cellular metabolism of various tissues? How do the patients gradually develop increased tolerance to galactose? How is the disease acquired? What are the best lines of treatment available? These problems will now be discussed.

The Enzymic Block

The metabolic path of galactose is as follows:—



Galactosaemic patients accumulate galactose and galactose-1-phosphate in their body fluids and cells. This suggests that the metabolic block must lie at either reaction (ii) or (iii), i.e. there must be a deficiency of either P-gal-uridyl transferase, or galactowaldenase; or alternatively there might be an anti-enzyme, or lack of some essential co-factor. Kalckar, Anderson and Isselbacher, working with erythrocytes, showed that P-gal-uridyl transferase (which is present in the cells of normal subjects) is lacking from those of galactosaemic patients. The enzyme galactowaldenase is present in both the normal and the abnormal cells. These workers could find no evidence of an anti-enzyme, nor of a missing co-factor, and concluded that the lack of P-gal-uridyl transferase was the lesion responsible for the condition. Deficiency of this enzyme was demonstrated in one patient of this series (P.M.A.).

The "Toxic" Agent

It has been suggested above that many of the clinical features are due to disturbances of cellular function by a "toxic metabolic product". Schwarz, Golberg, Komrower and Holzel, working on erythrocytes, showed that the galactosaemic cell metabolism (as demon-

strated by oxygen uptake) is inhibited in the presence of galactose. This inhibition cannot be due directly to the galactose (which actually increases the metabolic rate of normal cells); therefore it must be due to a metabolite, probably galactose-1-phosphate, which does accumulate owing to the enzyme deficiency. These workers suggest that the metabolic inhibition might be due to competition between

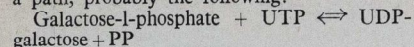
glucose-1-phosphate and galactose-1-phosphate for the essential co-enzyme glucose-1:6-diphosphate, thus:

Galactose-1-phosphate + glucose-1:6-diphosphate → Galactose-1:6-diphosphate + glucose-6-phosphate thereby gradually transforming the normal co-enzyme into galactose-1:6-diphosphate, which is useless in glucose metabolism. It seems likely, then, that the effect of accumulating galactose-1-phosphate is an inhibition of normal glucose metabolism, which is responsible for producing much of the energy required by the cell. This inhibition can easily account for the failure of so many cells to function normally.

The Development of Galactose Tolerance

As patients increase in age, their ability to metabolise galactose increases. This was noticed already by Göppert in 1917, when he remarked that "Je jünger das Kind ist, desto grösser dürfte die Schwierigkeit sein". This phenomenon suggests that there is an alternative metabolic pathway for galactose; some galactose metabolism certainly takes place in older patients, as shown by galactose excretion studies. Isselbacher, using 1-C¹⁴ labelled galactose, recently proved the existence of such

a path, probably the following:



He showed that the level of the necessary enzyme (UDP-gal-pyrophosphorylase) increases with age in normal subjects, and he suggested that the symptoms of galactosaemia were maximal in infancy, because then there is "both a pathological absence of P-gal transferase, and a physiologically feeble uridine-diphospho-galactose-pyrophosphorylase". As the latter enzyme's activity increases with age, the patients' galactose metabolism improves, in spite of the continued absence of the former.

The four Bart's patients are as yet too young to show any significantly increased tolerance to galactose, although they are all managing to take a rapidly increasing variety of foods. For example, P.M.A. is now able to drink Wanderlac in a concentration which she could not take initially, probably because of the traces of lactose present.

Inheritance of the Disease

The familial incidence of the condition suggests that it is inherited. Galactose tolerance tests have been carried out on the parents and other relatives of galactosaemic children: several had abnormal tolerance, though without any clinical manifestations of the disease. This suggests that clinical galactosaemia is inherited as a homozygous recessive characteristic, whilst heterozygosity confers abnormal galactose tolerance, without any clinical signs (Holzel and Komrower). Galactose tolerance was tested in the parents of S.D. and J.L., with the following results:

	Galactose index
Mr. D.	299
Mrs. D.	107
Mr. L.	163
Mrs. L.	127
Normal range	0-160

These results are not of great significance, but they do exhibit some degree of abnormal galactose metabolism in the parents of these patients.

More recently it has been shown that estimation of the level of the enzyme P gal-uridyl transferase is a more sensitive index for demonstrating the abnormality in both homo- and heterozygotes. Huang, Hugh-Jones and Hsia studied both enzyme levels and galactose tolerance tests in heterozygous carriers, and concluded that "the frequent occurrence of this condition in siblings, and among the offspring of consanguineous matings, together with its equal distribution in both sexes, suggest that galactosaemia is probably transmitted by a

single autosomal recessive gene".

Treatment

Göppert, in 1917, recommended replacing the "Milckzucker" by other sugars, such as sucrose or glucose. Today the management of these patients is based on a lactose free diet in the form of powder milk substitutes. Patients vary greatly in their tolerance of any given make of powder: "Galactomin", "Wanderlac", and "Nutramigen" were found, by a process of trial and error, to suit J.L., P.M.A. and S.D., and C.J.P. respectively. In fact, they all contain traces of lactose, and Komrower has pointed out that, as in the case of P.M.A., full strength Wanderlac may be badly tolerated, perhaps because "at full strength the amount of galactose children receive is just sufficient to build up a pathological level of galactose-1-phosphate in the cells". This very probably applies to other makes likewise, and could well account for the large number of distressing upsets in early life.

Later on, the diet must be based on rice flour and certain tinned foods, whilst substances such as Casilan, Robinson's groats, Farx and many others must be avoided. The gastro-intestinal upset suffered by C.J.P. on his "glue feeds" was probably due to the groats, which contain stachyose, of which galactose is a component. Another important aspect of this problem is that many common therapeutic agents, such as Vitamin C and Penicillin V tablets, are made up in lactose, and therefore cannot be used.

Recently (1960), Pesch, Segal and Topper have shown that steroids stimulate galactose catabolism both in vivo and in vitro; also, progesterone materially reduces the incidence of cataracts in galactose fed rats. In vitro experiments have shown that the effect is due to stimulation of the enzyme of the alternative pathway. Prepubertal galactosaemic patients given progesterone before an injection of C¹⁴ labelled galactose, had a greater output of C¹⁴O₂ (i.e. greater galactose catabolism) than those not receiving progesterone. The authors of this work do not claim that progesterone can replace the present treatment, but they do suggest that it might be useful during exacerbations of the disease, when the development of cataract and mental retardation seem to be progressive.

Prognosis

The prognosis for these patients depends mainly on the age at which the lactose free diet is started, and on whether or not it is strictly adhered to. In those patients whose diet is started early, and carefully managed, the signs

and symptoms disappear rapidly, and most children can be expected to develop normally: C.J.P., S.D. and P.M.A. seem at present to be well and normal, and the prognosis for them is good. However, almost all children in whom treatment is delayed even as little as six weeks, are mentally retarded, and later develop cataracts.

Remaining Problems

The biochemical nature of the disease has been elucidated; symptomatic treatment has been studied and successfully applied. But the fact remains that the life of the galactosaemic patient becomes progressively more difficult as he grows older: in our civilisation, all forms of social contact are centred round the sharing of food and drink, much of which, in this part of the world, contains milk. The resulting social and psychological difficulties of these patients must not be underestimated. The research workers are busy, and perhaps the patients can look forward to the development of an enzyme preparation, which, by replacing the missing enzyme, will revolutionise the treatment of galactosaemia, and enable them to live almost normal lives. However, until that happens, they must be content to feed on honey-dew and suchlike, and to avoid all milk, even that of Paradise!

"For he on honey-dew hath fed
And drunk the milk of Paradise."
(Samuel Coleridge Taylor: *Kubla Khan.*)

Acknowledgement

I should like to thank Dr. Charles Harris for permission to publish this case. Two of the patients mentioned in this account (J.L. and S.D.) have been described by Dr. A. White Franklin in the *Proceedings of the Royal Society of Medicine*, September, 1957, Vol. 50, No. 9, pp. 2 and 3.

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The Augustine Society

On 30th October, Father Bernard of the Society of St. Francis talked to the Augustine Society on the subject of Church unity. The purpose of seeking unity, he said, should be primarily not to strengthen the Church but to end the division of the Body of Christ.

The state of the Church is shown symbolically in the Church of the Holy Sepulchre at Jerusalem where a number of different denominations worship entirely separately. Because of their squabbling, the keys of the church are held by a Moslem family and much-needed restoration work is held up.

Division of the Church is often political in origin, as is the split in the Russian Orthodox Church to-day, but the chief cause is sin, pride, worldliness and small mindedness on each side. Luther and Wesley were both, in fact, quite orthodox theologians.

Hopeful signs are, however, to be seen. Ideas and movements originating in one part of the Church are tending to spread widely into the other parts. The Methodist view of the position of the laity, is spreading in such a way; the Protestant churches are founding religious communities, and in the Roman Catholic Church, there is a renewed understanding of the importance of the Bible and a desire, in the Liturgical Revival, to reveal more clearly the basic meaning of the Eucharist, the vernacular movement is strong in France.

How can we personally work for unity, then? By prayer, by meeting other Christians and by the exchange of thought with them. There is no place for bargaining.

Fr. Bernard commended to us the Week of Prayer for Christian Unity during which

the prayer is for unity "as Christ wills" (January 17th-24th).

One of the obstacles to unity is the tendency of each group to caricature the others in order to boost its own morale. We must "meet to know to love".

Finally we must, by listening to the beliefs of others, build up a composite picture of Christ.

LETTER TO THE EDITOR

The "Bleep" System

Dear Sir,

The "bleep" system has been in operation in the Hospital for over a year now, and an appraisal of its efficacy is, I think, due.

For those who are unaware of its existence, the bleep is carried by House Officers and other hospital officials who may be required urgently. It is a metallic instrument which clips easily in the pocket and emits a sound which is euphemistically known as a "bleep". When a person is thus summoned, a phone call to the exchange enables a message to be given.

In theory, the bleep system is the Hospital Administrator's dream. It is difficult to ignore its persistent call; it has a wide range (the Bart's bleeps reach the proximal end of the White Hart bar), and the onus of responsibility is definitely on the receiving end.

At Bart's however, this excellent system seems to have failed. At peak bleeping hours, owing to overloading of the busy operators at the Telephone Exchange, it may take anything up to 20 minutes before the strident summons goes forth. To a caller on the "National" phone (including the interval before the exchange even answers the call), the time lag may approximate to 25 minutes. This fantastic situation seldom occurred in the pre-bleep era,

A lively discussion followed, touching on the position of bishops, intercommunion (which Fr. Bernard thought should be an expression of unity and not a means to it), women in the ministry and the importance of being a faithful member of one's own church.

The Augustine Society was delighted to welcome several members of other religious societies. We hope they will come again.

when a reasonably conscientious House Officer marked the board in Surgery where he was likely to be found; an appropriate call from Surgery resulted in a message being delivered in reasonable time. Even more trying is the situation which may result when the bleep's battery runs dry, or the unfortunate instrument is otherwise indisposed. As there seems no way of telling, from the exchange end, when an instrument is working or not, and having had no answer from the bleeped one, the caller is told that the Doctor is not in the Hospital as he is "not answering his bleep". In many cases no further effort is made to trace the missing person. A further objection may be made on aesthetic grounds. The sound made by a freshly-charged bleep is very terrible indeed, and if an unsuspecting patient is within range the results may well be disastrous. Similarly, the croaking of an ageing bleep may be the last straw in a busy day.

Bart's has always been suspicious of change (what other London Hospital can boast the fact that not even internal-phones are fitted in the rooms in R.S.Q.?), and the failure of the bleep system justifies this suspicion; it has, I suggest, been a dismal failure.

A return to the "bad old days" is clearly called for.

Yours sincerely,

R. P. Bonner-Morgan.

SPORTS NEWS

Rugby Club

1st XV v. C.U.L.X. Club. Lost 24-3.

18th Oct., 1961.

The Hospital went up to Cambridge with a somewhat weakened team and on the cold windswept Corpus rugger ground the LX Club easily defeated their XV who were outplayed in almost every department except, perhaps, in the tight. The LX Club were heavier and faster and although by half time with the score at 14-3 hope of victory was rather left behind (as was one member of the team later that evening) Bart's played hard to the finish, and only two scores were added to the Cambridge Club's victory in the second half. Had the Bart's covering been better the defeat, perhaps, would have been lessened, but it is difficult to see how it could have been avoided.

Team: A. P. Ross, R. V. Jeffreys, A. T. Letchworth, P. A. R. Niven, S. G. Harris, E. D. Dorrell, D. Chesney, O. J. A. Gilmore, B. H. Gurry, A. J. S. Knox, D. J. Delany, B. R. H. Doran, M. C. Jennings (capt.), C. J. Smart, D. Goodall.

1st XV v. O. Blues. Lost 14-3.

21st Oct., 1961.

By dint of intelligent use of their strong pack and defensive backs, the O. Blues won this game by 1 goal 2 tries and a penalty goal to a try, although it looked at half time as if the Hospital might well win despite a 3-point deficit. The Bart's pack were somewhat outplayed, but were far from being overwhelmed, and of the two sets of backs theirs seemed definitely superior. The Hospital try came when Doran, picking up a loose ball, started a movement which Jeffreys finished. However, in the second half two tries were kindly offered to the O. Blues and they gratefully accepted them, winning the match by a greater margin than the general run of play might have indicated.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. G. Harris, E. D. Dorrell, D. Chesney, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, R. P. Davies, M. C. Jennings, C. J. Smart.

1st XV v. United Industries. Won 27-0.

28th Oct., 1961.

On a fine autumn day at Chislehurst the Hospital won this game easily with tries from Harris (2), Niven (2), Letchworth, Jeffreys

and Jennings, but it was not until the second half that Bart's discovered that by throwing the ball about and by determined running tries were not difficult to get. Two tries, which resulted from orthodox line movements, were the only scores in the first half, but in the second, home supporters in any case must have enjoyed some entertaining play, especially when Niven joined the line. This win was matched by the 34-0 defeat of Esher by the "A" XV.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. G. Harris, E. D. Dorrell, D. Chesney, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, R. P. Davies, M. C. Jennings (capt.), C. J. Smart.

CORNISH TOUR

1st XV v. Penzance. Lost 15-5.

4th Nov., 1961.

A strong Penzance XV made little impression on the Bart's defence for the first three-quarters of the game, with Jeffreys quick to recover the ball from the long diagonal kick of which the Penzance fly-half made full use; and, in spite of opposition's dominance in the line out and loose, Gurry made sure the Bart's backs had their full share from the tight. In reply to a penalty, Bart's scored almost immediately from the ensuing kick off with Harris breaking through a gap created by Jeffreys. At this stage the forwards were playing with rewarding determination, but the greater experience and weight of the home pack told towards the end. Gilmore, Doran and Jennings all played well in this game.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. C. Harris, E. D. Dorrell, D. Chesney, O. J. A. Gilmore, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, D. J. Delany, A. P. Ross, M. C. Jennings (capt.), C. J. Smart.

1st XV v. Falmouth. Lost 6-0.

6th Nov., 1961.

Falmouth have enjoyed quite a successful season in Cornwall and Devon, although they possess no outstanding players, and Bart's did nothing to diminish this success in rather a dismal game under flood-lights. The Hospital's attack lacked cohesion at forward, half and back and Falmouth, making use of the tights and rather scrappy play, scored two tries, one in each half.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. C. Harris, E. D.

Dorrell, D. Chesney, O. J. A. Gilmore, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, M. M. Orr, C. M. Cripps, C. J. Smart, M. C. Jennings (capt.).

1st XV v. Dartmouth B.R.N.C. Won 11-3.

Although the opposition was not very strong, this was a very encouraging game, where after 20 minutes the Hospital forwards gained the mastery which they retained except for a few minutes near the end, for the rest of the game. Furthermore, this possession, with Orr dominating the lineout, was not wasted in the backs, where both Harris and Sidebottom ran with considerable determination. Niven at full-back, where he played safely in defence, showed some power running in attack and Smart was prominent in the loose. With this win the tour ended on a very pleasant note.

Team: P. A. R. Niven, R. V. Jeffreys, E. S. Sidebottom, A. T. Letchworth, S. G. Harris, E. D. Dorell, D. Chesney, R. J. Shearer, B. H. Gurry, A. J. S. Knox, D. J. Delany, M. M. Orr, C. M. Cripps, C. J. Smart, M. C. Jennings (capt.).

1st XV v. O. Haberdashers. Lost 14-6.

11th Nov., 1961.

After 36 hours of rain, the pitch at Chislehurst was in surprisingly good condition when O. Haberdashers beat a rather jaded Hospital XV by 14 pts. to 6. The Bart's points came from a penalty by Harris from 5 yds. inside his own half, and a good try by Gurry from a grab cross-kick at the end of the game. Halls, playing for the 1st XV for the first time this season, had a good game, and Smart also was prominent, but when, towards the end of the game Bart's began to regain form, it was too late.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, A. T. Letchworth, S. C. Harris, E. D. Dorrell, D. Chesney, N. Greenwood, B. H. Gurry, A. J. S. Knox, B. R. H. Doran, M. M. Orr, M. C. Jennings (capt.), C. J. Smart, G. J. Halls.

1st XV v. O. Allynians. Drawn 3-3.

18th Nov., 1961.

This was a fast open game which Bart's were perhaps a little unlucky not to win. In the first half in which the only score was a penalty goal to the O. Allynians, Bart's were pinned to their own half by some superb touch kicking by the opposition's full-back. But in the second half Delany and Orr were working well in the tight and lineouts, Letchworth playing for the first time at fly-half, was carving great gaps in the Allynian defence and Harris had three very fine runs, one of which

resulted in the Hospital try. The back row of Jennings, Smart and Halls looked as cohesive as it has done this season. In spite of some violent assaults on each other's lines, neither side scored again before the final whistle.

Team: P. A. R. Niven, R. V. Jeffreys, J. E. Stevens, E. Sidebottom, S. G. Harris, A. T. Letchworth, D. Chesney, J. W. Hamilton, B. H. Gurry, A. J. S. Knox, J. Delany, M. M. Orr, M. C. Jennings (capt.), C. J. Smart, G. J. Halls.

Soccer Club

St. Bart's 1st XI v. Trinity Hall.

9 Nov., 1961

Result: Bart's 2. Trinity Hall 5.

Bart's began well against a strong Trinity Hall eleven with two Cambridge University players, but the Hall deserved their goal late in the first half. M. Waterworth brought us back on level terms with a finely anticipated goal just before the interval. In the second half Trinity Hall, with their superior attack, put the Bart's defence under continual pressure and scored three more fine goals. Bart's rallied, however, and reduced their lead with one of the many scoring chances the defence and inside forwards had worked hard to produce.

Team: B. Perriss, G. Haig, A. Howes, J. Pemberton, P. Savage (capt.), M. Hudson, E. Manson, H. Phillips, P. Herbert, M. Waterworth, N. Davies.

St. Bart's 1st XI v. King's College

Result: Bart's 5. King's College 1.

On a wet and miserable afternoon Bart's produced an excellent brand of football. P. Stanley opened the scoring for Bart's after some hard-fought mid-field play. P. Herbert made it two-nil for Bart's with an excellent individual effort, driving his shot from well out, just inside the post. Soon after half-time King's replied with a move that was destined to provide a goal; the outside right scoring from close range. H. Phillips and a penalty by Herbert put Bart's in an invincible position with two more goals. A fifth goal by Herbert rounded off a most successful effort by the whole team. Both N. Offen and T. Guthrie played well as newcomers in the half-back line.

Team: B. Perriss, A. Howes, T. Guthrie, N. Offen, P. Savage (capt.), M. Hudson, E. Manson, H. Phillips, P. Herbert, M. Waterworth, P. Stanley.

St. Bart's 1st XI v. Old Chigwellians.
Saturday, 18th Nov., 1961
Result: Bart's 1. Old Chigwellians 1.

This was a good match throughout with neither side easing under the pressure. B. Perriss stopped some dangerous early raids by the Chigwellians and the defence settled down quickly, managing to break up a lively attack. N. Offen covered well at left half, and B. Hore and G. Haig worked well together as the last line of defence. Changing over with no score, Bart's then showed more determination than usual. Eventually P. Herbert scored a fine goal which the useful Chigwellian goalkeeper had no chance of saving. Although the defence held on grimly they were unable to stop one of the late Chigwellian moves culminating in a well-deserved goal.

Team: B. Perriss, A. Howes, G. Haig, J. Pemberton, B. Hore, M. Hudson, P. Stanley, P. Herbert, N. Offen, H. Phillips, N. Davies.

Hockey Club

Wed. 25th Oct.—Fri. 27th Oct., 1961

The Hockey Club's visit to Cambridge this season was reverted to its accustomed autumnal position in the fixture list, and the weather more than repaid its debt for February's wash-out!

On the Wednesday we played Pembroke College under ideal conditions. The first half produced some fast play with Bart's taking the territorial advantage. Constructive moves among the forwards invariably ended scrappily in the circle where finishing power was not apparent. Our strength in short corners soon registered a score, but shortly after half time S. Phillips, in goal, bravely stopped a rising shot, only to fall with a fractured right radius. This incident, together with revived Pembroke pressure, told on the beleaguered Bart's defence. The final score was 2-4.

On Thursday, we played King's College. The last-minute arrival of the Captain and the second-string goalkeeper restored morale and in the opening minutes it was clear we were to have most of the game our way. Constructive passing among the halves and forwards kept us near the opposition's goal, but lack of aggressive play and thrust in the circle left most of the movements unrewarded. It seemed that Bart's were quite satisfied with their three-goal lead and towards the end play became slow and scrappy.

In contrast the Friday match against Jesus College, whom we had beaten the previous

Saturday, was a battle to the final whistle. With their side strengthened, Jesus set the fast pace, although the ground had had a soaking during the night.

Plentiful Bart's forward movements were frustrated by a tight opposing defence. In the second half, when the score was level 2-2, the Bart's defence was caught and a swerving shot, baffling the goalie, just made the net. Indignant at conceding the lead, Bart's pressed even harder for the closing quarter hour, unfortunately without success.

Those who played were: S. Phillips, S. Campbell-Smith, W. H. Pagan, A. Frank, C. D. R. Flower, A. R. Robertson, R. Courtenay-Evans, S. Thomas, M. Smith Walker, A. Edleston, P. J. Kingsley, D. Glover, P. W. Caine, W. Castleden.

Swimming Club

The United Hospitals Water Polo League is being played this term at St. Mary's and Bart's have entered two teams.

Barts I v. St. Thomas' I. Won 10-5.

The side built up last year started this new season with a convincing win over St. Thomas'. Shorey had little trouble in beating his man and accounted for five of the Bart's goals, and was well supported by Ruoss, Groves and Shand. The goalkeeper remains the only permanent unfilled position in our team and despite a good defence the opposition managed to net the ball five times.

Barts I v. St. Mary's II. Won 6-4.

The team, without Groves for this match, due to illness, made very heavy weather of beating a Mary's side who failed to conceal their fouling from the referee, resulting in three successful penalty shots to Bart's. The rather rough game tends to upset the side and more advantage should have been taken of the fairly permanent absence of one of the opposing team.

Barts II v. Middlesex II. Won 12-2.

This was a scrappy match where neither side great credit, out of which Bart's emerged victorious because of two members of the side who could shoot at goal hard and accurately.

Barts I v. London I. Won 10-4.

There was a very noticeable improvement in the side after some intensive training in the nurses' pool, resulting in much greater cohesion and the opposition were outmanoeuvred for most of the match. Their goals came only from a tendency to mark closely on our part when winning and if this was overcome we should have little difficulty in reducing the number of goals scored against us.

Cross Country

So far this season Bart's have run in two matches in the first division of the University Cross-Country League. Competition is stiffer than it was last year when we won the 2nd Division; at the moment we are lying 2nd to Imperial College who are extremely strong, having 15 runners in the University teams. Although many consider this sport to be a highly individual one the results of these two matches and of those to come will depend largely upon the weaker members of the team rather than the first two men home.

Placings in 1st Match Placings in 2nd Match

2nd Littlewood	1st Littlewood
4th Foxton	4th Foxton
20th Pott	6th Pott
67th Phipps	31st Lewis
78th Lewis	33rd Saunders

BOOK REVIEWS

Histology by Arthur W. Ham and Thomas Sydney Leeson. 4th Edition. Pitman Medical Publishing Co. 85s.

This book has established an excellent reputation, which the latest edition fully supports. There has been extensive alteration to the chapters dealing with the cell and also in the description of special methods. It is a pity that the croneous diagrams of the paths of rays through the light and electron microscopes still retain their errors. The only other blemishes are that the fluorescent antibody technique of Coons and Caplan uses fresh frozen sections and that these are not fixed until after the fluorescent antibody has been applied and, indeed, may never be fixed in the ordinary sense of the term. These, however, are minor quibbles; the book can be wholeheartedly recommended to anyone who can firstly pay the price, and secondly face the rather forbidding bulk.

The style is clear and very readable so that the size is somewhat less of an obstacle than would be expected. It is still sufficiently great to deter most undergraduates, but as a reference work for the benefit of research workers and teaching staff it is most valuable. F.J.A.

Roxburgh's Common Skin Diseases by P. F. Borrie. Published by H. K. Lewis and Co., London. £1 17s. 6d.

To the harassed medical student and practitioner this textbook will be most welcome in giving him an elementary grasp of dermatology. This almost entire revision is generally well-illustrated, clearly printed on good-contrast paper, and the subject matter concisely dealt with—above all, it is easy to read and to understand.

The early chapters of basic morphology are recommended and, in addition, there is a good chapter on general treatment in which, for instance, the indications for corticosteroid therapy are carefully outlined, on a rational basis, and provide a good

84th Hardy	39th Hardy
96th Pickard	53rd Pickard
137 Finished	61 Finished

4th posn. in League 2nd posn. in League
 Apart from these matches all members have been running in U.H. matches and are getting fitter. Littlewood won the University trials and has represented the 1st eight in all its matches so far; he has also run for U.H. against Mitocavians and Orion, and again against Sandhurst and University of London "A", breaking two course records. Foxton has been hard on his heels and also ran for the University v. Oxford and v. Cambridge, coming 10th on both occasions. He further distinguished himself by recording the fastest lap in the U.C. relay when a weathered Bart's team came 24th. Pott, in spite of everything, is getting fitter and running well in heavy conditions which hold better things back!

P.L.

working rule in making the decision to use these drugs. Perhaps one of the most difficult conditions for the student to understand is the eczema-dermatitis group. A lucid expression of the diagnostic group is given here, particularly in tracing the development of the lesions in its various phases. There is also a working summary of the various factors both specific and non-specific, which affect the skin prone to eczema. It is rarely appreciated that the skin which has been subjected to repeated trauma from various irritants seldom escapes without permanent damage, and requires continued care even when the acute phase has settled.

In discussing dermatitis medicamentosa, an unfortunate error may confuse the reader. Correctly speaking, dermatitis venenata is the term which should be used to describe allergic eruptions due to the topical application of medicaments, while the diagnosis of dermatitis medicamentosa synonymous with drug eruption should be reserved to indicate those eruptions due to the internal administration of medicaments. A helpful list of various drugs and the characteristic eruptions which they may induce appears on pages 382 to 384.

Throughout the remainder of the text much emphasis is placed upon the association between skin eruptions and systemic disorders—a feature whose importance is more and more realized by all imaginative physicians.

Erythema nodosum, which used to be regarded as almost invariably tuberculous in aetiology, is now seen to appear with streptococcal infections, sarcoidosis, ulcerative colitis, drug eruptions, and only rarely from acid-fast infection.

Simple therapeutic measures have been appended to each disease discussed which makes the separate topics complete in themselves and readily available for rapid reference even in the "surgery". Finally, that big "bug-bear" of differential diagnosis is emphasised with each discussion. A handy book for study.

A.S.

Ophthalmic Operations by Seymour Philips. Ballière, Tindall and Cox. Price 70s. Second Edition by John Foster.

The author of this handsomely-produced book has especially in mind, we are told in the Preface, the F.R.C.S. candidate and the ophthalmic surgeon who operates only occasionally. The latter will no doubt be happy with the book, and safe in its hands, but the F.R.C.S. candidate will need to supplement it extensively. Indeed, he is warned in the Preface that the book is, at the time of publication, in some fields behind the times. Unfortunately, this warning has not been carried far enough, and the F.R.C.S. candidate who retains the impression that a satisfactory method of lens extraction for ordinary use is one employing a complete iridectomy and no corneo-scleral sutures will start with a handicap. (He should, furthermore, avoid the capsule grip at six o'clock in the "Kirby" method!) He would, again, be most unwise to exile the prophylactic peripheral iridectomy in angle-closure glaucoma to the United States of America.

The surgical treatment of retinal detachment has been confined to the diathermy operation, scleral shortening and vitreous implantation. The space devoted to the treatment of unilocular aphakia by acrylic implants—a method having few remaining adherents—might with advantage have been given over to those newer techniques in retinal detachment work which are being used more and more extensively. Scleral implantation, encircling tubes and sutures, photo-coagulation and the Custodis method of treatment should be described in a book of the scope intended. J.E.C.

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL

SUPPLEMENT

to July, 1961, issue

Containing times for attendance at the Out-Patient and Special Departments, together with a list of Ward Rounds

NOTES :

* By appointment only with Appointments Department (MONarch 7777, ex. 103/104)

† There is a Fracture Clinic daily at 9.30 a.m., attended by a Registrar to the Orthopaedic Department.

‡ Children's Casualty: Monday to Friday, 1 p.m., Saturday, 9 a.m.

§ In addition to the Clinic times listed, a Male Orderly will be on duty and a House Physician on call 9 a.m. to 5 p.m. daily; and 9 a.m. to 12.30 p.m. on Saturday.

** These hours are intended only for patients who cannot attend at midday.

	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
*MEDICAL OUT-PATIENTS	Dr. K. O. Black, 9 a.m. Dr. N. C. Oswald, 10 a.m.	Dr. A. G. Spencer, 10 a.m. (Medical Unit)	Dr. W. E. Gibb, 9 a.m. Dr. H. W. Balme, 9 a.m.	Dr. N. C. Oswald, 9 a.m. Dr. K. O. Black, 10 a.m.	Dr. A. G. Spencer, 9 a.m. (Medical Unit) Prof. E. F. Scowen, 10.30 a.m.	Dr. R. Bodley Scott, 9 a.m. Dr. H. W. Balme, 9 a.m. Dr. W. E. Gibb, 10 a.m.
*SURGICAL OUT-PATIENTS New Cases, 9 a.m.	Mr. E. G. Tuckwell, 9 a.m.	Surgical Professorial Unit, 9 a.m.	Mr. J. O. Robinson, 9 a.m.	Mr. D. F. Ellison Nash, 8.45 a.m.	Mr. Ian P. Todd, 9 a.m.	Duty Surgical Firm
*Diseases of Women, Ante-natal	Mr. J. Beattie, 9 a.m. (Ante-natal) Leucorrhoea Clinic, 1.30 p.m.	Mr. J. Howkins, 9 a.m. (Ante-natal) Mr. J. Beattie, 1.30 p.m. (Gynae.)	Mr. J. Beattie, 9 a.m. (Infertile) Post-natal, 10.15 a.m.	Mr. D. B. Fraser, 12.45 p.m. (Ante-natal)	Mr. J. Howkins, 9 a.m. (Gynae.)	Mr. D. B. Fraser, 9 a.m. (Gynae.)
*†Orthopaedic Department	Mr. H. J. Burrows, 9.30 a.m. (Fracture Clinic) Mr. H. J. Burrows, 1 p.m.		Mr. J. N. Aston, 9 a.m. (Fracture Clinic)	Mr. W. D. Coltart, 1 p.m.	Mr. W. T. Coltart, 9 a.m. (Fracture Clinic)	
*Ear, Nose and Throat Department	Mr. J. W. Cope, 9.15 a.m.	Mr. F. W. C. Capps Mr. J. C. Hogg alternately, 9.30 a.m. Mr. N. A. Jory, 1 p.m.	Mr. J. W. Cope, 2 p.m. (Deaf Aids Clinic)	Mr. J. C. Hogg, 9.30 a.m.	Mr. N. A. Jory Mr. J. W. Cope alternately, 9.30 a.m. Mr. F. C. W. Capps, 1.30 p.m.	
*Ophthalmic Department	Mr. J. H. Dobree, 9 a.m. Refraction Clinic, 1.30 p.m.	Mr. H. B. Stallard, 1 p.m.		Mr. J. H. Dobree, 9 a.m. Refraction Clinic, 1.30 p.m.	Mr. H. B. Stallard, 1 p.m.	
*Skin Department	Dr. R. M. B. MacKenna, 1.45 p.m. Wart Clinic, 1.45 p.m.	Dr. P. F. Borrie, 9.15 a.m.	Dr. R. M. B. MacKenna, 9.15 a.m. Dr. P. F. Borrie, 1.45 p.m.		Dr. R. M. B. MacKenna, 9.15 a.m. Dr. P. F. Borrie, 9.15 a.m.	
*‡Diseases of Children	Dr. C. F. Harris Dr. A. W. Franklin, 1.30 p.m. (under 1 year)	Dr. C. F. Harris, 1.30 p.m.			Dr. A. W. Franklin, 1.30 p.m.	
Dental Department	Mr. G. A. Cowan, 9.30 a.m.	Mr. G. T. Hankey, 9.30 a.m.	Mr. J. D. Hambrook, 9.30 a.m.	Mr. G. A. Cowan, 9.30 a.m.	Mr. G. T. Hankey, 9.30 a.m.	Mr. T. T. Schofield, 9.30 a.m.
Tuberculosis Dispensary		New { 12.20 to 1.30 p.m. Cases { **5 to 7 p.m. Art. Pneumothorax Clinic, 3 p.m.			By appointment only, 3 p.m.	
Maternity and Child Welfare (City Residents only)	2 to 4 p.m.		2 to 4 p.m.			
§Department of Venereal Diseases	Men: 11 a.m. to 1.45 p.m. Women: 4 to 6 p.m.	Women: 11 a.m. to 1.45 p.m. Men: 4 to 6 p.m.	No Clinics	Men: 11 a.m. to 1.45 p.m.	Women: 11 a.m. to 1.45 p.m. Men: 4 to 6 p.m.	Men and Women: 9.15 to 11.15 a.m.
*Plastic Surgery			Mr. P. H. Hayes, 1.30 p.m. (1st and 3rd Wednesdays)			
*Department of Psychological Medicine	Dr. Pare, 2 p.m. (Old patients)		Dr. Linford Rees (Old patients), 2 p.m.	Dr. Linford Rees, 2 p.m. Dr. Pare (new cases only) 5.30 p.m. Old cases by appointment with Psychi- atric Social Worker	Dr. Pare, 2 p.m. (Old patients and new children seen by appointment with Psychiatric Social Worker)	
*Neurological Department		Dr. J. W. Aldren Turner, 1.15 p.m.			Dr. J. W. Aldren Turner, 1.15 p.m.	
*Department of Neurological Surgery		Mr. J. E. A. O'Connell, 1.15 p.m.			Mr. R. Campbell Connolly, 2 p.m.	
*Thoracic Surgery	Mr. I. M. Hill, 1.30 p.m.		Mr. O. S. Stubbs, 10.30 a.m.			
*Cardiological Department			Dr. G. W. Hayward, 10 a.m. (Follow-up) (Cardiac) Dr. Honey)	Dr. G. W. Hayward, 9.30 a.m. (Cardiac)		
*Special and Follow-up Clinics	Mr. I. P. Todd, 4.30 p.m.	Speech Therapy, 1.30 p.m. Mr. Nash, 1.45 p.m. (1st and 3rd Tuesdays) Mr. A. H. Hunt, 12.30 p.m. (Varicose Vein) Mr. Naunton Morgan, W.F.U. (2nd and 4th) Dr. A. W. Spence, 2 p.m. (Endocrine)	Mr. E. G. Tuckwell, 12.45 p.m. (3rd and 4th Wednesdays) Mr. Badenoch, 2 p.m. (Genito-Urinary) Mr. A. H. Hunt, 9.30 a.m. (first Wednesday of month) Mr. A. H. Hunt, W.F.U., 2 p.m. Dr. Balme (2nd and 4th) (Rheumatic)	Dr. Cullinan, 10 a.m. (Gastro-enterological) Dr. Bodley Scott, 1.45 p.m. (Anaemia) Surgical Unit, W.F.U., 2 p.m. Dr. Black, 4.30 p.m. (Diabetic) Dr. Spence, 4.30 p.m. (Endocrine)	Prof. Scowen, 10.30 a.m. Dr. Black, 10.30 a.m. (Diabetic) Surgical Unit, 1.30 p.m. (Vascular diseases) Speech Therapy, 1.30 p.m.	Dr. Spence, 9 a.m. (Endocrine)
Radiotherapy Department		Mr. I. G. Williams, 1.30 p.m.		Dr. A. E. Jones, 1.30 p.m.		

WARD ROUNDS

MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY
Dr. Alcten Turner, 10.30† Dr. Spence, 10.15	Dr. Cullinan, 10.30	Dr. Black, 10.30	Dr. Bodley Scott, 10.30	Mr. Naunton Morgan, 8.45*
Mr. Tuckwell, 10.00 Mr. Badenoch, 11.00				
Dr. Harris, 10.30	Dr. Franklin, 10.30	Mr. Beattie, 10.00	Mr. Fraser, 10.00	
Dr. Oswald, 1.30 Dr. Bodley Scott, 2.00	Professor Scowen, 2.00 Dr. Hayward		Prof. Scowen, 2.00 Dr. Cullinan, 2.00 Dr. Spence, 2.00 Dr. Balne, 2.00	Dr. Spener, 2.00 Dr. Black, 2.00 Dr. Gibb, 2.00 Dr. Hayward, 2.00
Mr. Hunt, 1.30 Mr. Todd, 2.00 Mr. Birnstingl, 2.00	Mr. Naunton Morgan, 1.30* Mr. Robinson, 1.30		Mr. Hunt, 1.30 Prof. Taylor, 2.00 Mr. Birnstingl, 2.00	Mr. Nash, 1.30 Mr. Badenoch, 2.00

† Fourth Floor Demonstration Room

* At the Fountain

