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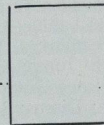
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EXASPERATION AT SWANSEA

At their Annual Meeting in Swansea on 10th July, the Representatives of the British Medical Association debated the motion "that payment by the patient of fees for items of service, recoverable from the State in part or wholly, be included in the Charter as one method of remuneration." After the briefest of discussions the motion was passed by the necessary two-thirds majority to become the official policy of the B.M.A. The Charter for the Family Doctor Service had originally provided for three methods of payment by the State—capitation (the current system, justly criticised), item-of-service (but with no contribution from the patient), and salary. It fell to Dr. J. C. Cameron and his five colleagues—the official negotiators of the B.M.A.—to acquaint the Minister of Health with the decision to include this fourth method of payment in the Charter. Predictably, and indeed as Dr. Cameron had warned the Annual Meeting, the Minister declared the proposal to be "quite unacceptable." Fifty Labour M.P.'s protested strongly against the imposition of any financial barrier between doctor and patient, and the *New Statesman*, beneath the Editorial headline "Britain's Foolish Doctors" proclaimed indignantly: "The doctors' latest move is a piece of impudence . . . Family doctors have a valid case for improved conditions and a new pay structure, but it is intolerable that they should demand the right to decide how the money should be provided." And yet, as the *British Medical Journal* pointed out, the Charter, which the Minister agreed to accept as a basis for negotiation, includes the words: "the family doctor must . . . be adequately paid by a method acceptable to him which encourages him to do his best for his patients." It is therefore a great pity that the Minister refused even to discuss a method of payment which doctors clearly believe would lead to an improvement in the service they can give their patients.

Intolerant rather than intolerable was the general reaction of the Press to the doctors' demand. For the most part Fleet Street declared it to be a hasty and somewhat ill-considered move on the part of the younger doctors, arising out of profound dissatisfaction with the status quo and exasperation at the slowness of the current negotiations. The *Times* leader suggested that a fee would act as no deterrent against abuse of the doctors' time if it were recoverable, largely or in its entirety, from the State. It hinted at "graver objections to this proposal, among them the way it fetters the profession's own negotiators". Certainly the timing of this controversial addition to the Charter must have made Dr. Cameron's already difficult task substantially more like that of Sisyphus. Even Pertinax of the *B.M.J.* expressed surprise at the speed at which the doctors had reached their decision at Swansea. But he claimed with some reason that a direct payment of money for services rendered would be likely to establish a more responsible relationship between doctor and patient; and he emphasised the valid point that similar schemes were working successfully in Norway and several other countries.

Some of the most trenchant criticism of the Swansea decision came from dissenting general practitioners. According to the *Daily Telegraph* of 3rd August, there were thirteen fewer resignations in the hands of the British Medical Guild on that date than there had been in June. A brief inspection of the correspondence columns of the *B.M.J.* gave the impression that most of those who had withdrawn their resignations had also rushed into print. Some felt that for want of ready cash, serious cases might delay seeking advice until dangerously late. Others believed that collecting the money would be awkward and embarrassing, and would lead to bad debts and consequent hard feeling.

In conclusion it is clear that a great many doctors agree that "too much welfare (is) as harmful as too little". But in view of the considerable progress made so far in the negotiations, it is a pity that the new proposal was not incorporated in the original Charter. And in this context it is significant indeed, as the *New Statesman* was quick to point out, that the Medical Practitioners' Union, which first drew up the Charter, has dissociated itself from the conference resolution.

LETTERS TO THE EDITOR

TERMINOLOGICAL INEXACTITUDE

Sir,—I have read your "Sober-suited Matron" article (*see July Editorial*) with the greatest of interest. Actually, you have hit the nail I was trying to drive home right on its head. In presenting my paper to the Institute of Hospital Administrators, I was trying to draw a comparison between the patients of a hundred years ago and those in our hospitals to-day, and I tossed in (as padding really) the surprise I have sometimes felt that, in these days when people are so sensitive to nomenclature, no new name had been found to describe those under our care. A change of name only would, of course, be of no value at all. It was the attitude of staff to patients that I was really attacking, but newspapers have a habit sometimes of taking points out of context and thereby altering the sense of what one has tried to say.

I wonder if you happened to hear the radio programme "To-day" at 8.30 a.m. on 30th June. If you did, you will have already learned my answer to your question on the title "Matron", but, if you did not listen in at that time, I may tell you I was asked this question during the broadcast. I said then that for years I have been trying to sell the idea that this title is outdated and quite out of keeping with the post it is meant to describe (with the exception of small cottage hospitals where the Matron is housekeeping and doing other things too). I was asked what I would suggest as an alternative, and I said that Director of Nursing Service would be more appropriate. I should be interested to hear what you would think of that.

Yours sincerely,
Miss W. E. PRENTICE,
Matron,
Stracathro Hospital,
Brechin, Angus.

12th July.

ANATOMIST IN A BALLOON

Sir,—I have read the interesting article by Roger Clayton on Ballooning (*August, 1965*). Mention is made of the first aerial voyage in England by Vincent Lunardi of the Neopolitan Embassy which we know was made on the

15th September, 1784 from Moorfields, Finsbury.

It has long been known in Exeter that the first Englishman to make an ascent in a balloon was John Sheldon, also in 1784 a little after Lunardi's flight which Sheldon followed on horseback. John Sheldon was an extraordinary character who had been a student and then lecturer under William Hunter at the Windmill Street School, and he succeeded William Hunter as Professor of Anatomy to the Royal Academy. He was evidently a great research worker, particularly in studies of the lymphatic system.

The whole story of John Sheldon and his ballooning is well told by Miss Jessie Dobson in an article published in *The Practitioner* in July 1954. He co-operated with Jean Pierre Blanchard, who had also invented a balloon in which a condemned criminal had been sent up from the top of Notre Dame and who had reached the ground without injury and for this reason was pardoned for his misdemeanours. When Blanchard came to London he and Sheldon decided to make another attempt. There is an entertaining sketch by Paul Sanby in the Archives of the Royal Aeronautical Society. This picture shows a good deal of material being thrown out from the basket beneath the balloon. Apparently the balloon was not making enough headway and Blanchard decided that Sheldon should get out and he thought the best way of achieving this was to throw all the food overboard, the comment at that time being that "the best way to get rid of an Englishman was to throw out the eatables". However, lightening the craft by this means had enabled it to rise and the balloon successfully passed over Hammersmith, Chiswick and Twickenham, finally descending in Sunbury where Sheldon alighted and Blanchard continued the journey alone to near Romsey.

John Sheldon was undoubtedly an interesting character and Miss Dobson's story is well worth reading. He finally came to Exeter in 1797 and remained as surgeon to the Royal Devon and Exeter Hospital until he died in 1808.

Yours faithfully,
NORMAN CAPENER,
12 Barnfield Hill, Exeter.

28th July.

WITCH DOCTORS

Sir,—Having worked for some time in Nigeria I was interested in the article by Derek Browne in your July issue (*A Strange Encounter in the West African Jungle*), particularly in his description of the witch doctor. He makes the mistake, however, of assuming that witch doctors and "Western" doctors are in competition. This is not the case. On the contrary, the witch doctor plays a very essential part in the medical set-up.

The witch doctor's role is to filter off the psycho-somatic cases. Even in England, it has been calculated that thirty per cent of a GP's case load are psycho-somatic. In Africa, where the belief in witchcraft and spirits as the cause of disease is so firm, the proportion of illness in which there is a psychological factor is probably much higher. In a country where there is about one "Western" doctor to 30,000 persons the saving in work must be tremendous. Without witch doctors the medical services would be completely flooded.

Incidentally, it appears much easier to cure psycho-somatic illnesses when they are founded on such beliefs. They can be more easily explained away, or dealt with by some suitable sacrifice. Western patients have to grapple with deeply inhibited egos or ids, far more difficult to get at. As scientific education spreads, the psycho-somatic diseases will alter in pattern. Perhaps the most difficult person to handle is the semi-educated African. His trouble may be rooted in superstitious beliefs which he may have successfully suppressed. He will not consult the witch doctor—quite rightly—but western medicine cannot help him. Western doctors practising in Africa are so unused to seeing psycho-somatic disease that he may suffer years of medication and even operation before his complaint is understood.

Perhaps these remarks may be of help to any other medical students or doctors following Derek Browne's example. It is a part of the world which is extremely interesting to work in. I can thoroughly recommend it.

I am,

Yours faithfully,

W. NORMAN-TAYLOR,
74 Mildred Avenue,
Watford, Herts.

29th July.

ACADEMIC DRESS FOR BART'S MEN

Sir,—We have all heard the aphorism "You can always tell a Bart's man—but you can't tell him much." I wonder whether identification is as readily made as it might be. Whether one is in the United Kingdom or at one of earth's outposts, it is always pleasant to meet another from our Hospital. The tie can be a help, but there must be few who wear it constantly, some who prefer bows, and others who live where it is not usual to wear esoteric neckties. Surprisingly enough, Australia is not one of these places, much information being readily available on Universities, Clubs, Regiments and Schools by a glance towards the suprasternal notch.

Again, a popular concept of the Antipodean is probably of wide-brimmed hats, open necks, and brown boots, but in fact whenever doctors meet in these latitudes, there is a scramble to get into Academic dress—usually over evening dress which prevents a distinctive tie. Bart's graduates appear in the rig of their appropriate University (or Royal College), classifying themselves with the products of some very varying institutions. The distinctive features of the sons of Rahere are probably quite effectually disguised thus at official functions, wherever they are held.

Can anyone advise me whether there is any way of showing our Hospital in our robes? Enquiries from an authority on "Court Dress and Robes" have failed to reveal a distinctive feature.

If there is no such feature, could an appropriate body of the Hospital or Medical College investigate the matter, and design some modification? Presumably the reason for academic dress is to show in a fitting manner where the wearer comes from. This meaning is lost if the appropriate robes fail to show that a Bart's man comes from Bart's.

Yours faithfully,

W. McL. THOMSON
270 Sandy Bay Road,
Hobart, Tasmania,
Australia.

4th July.

(Surely the obvious solution for evening dress would be a black-and-white striped bow tie).

ENTHUSIASM STIFLED

Sir, Despite the rigorous winter temperatures the hospital library is in constant use throughout the year, both by students and members of staff.

It is to be regretted that an inconsiderate minority persist in borrowing books and not returning them. I am not referring to temporary loan of books through the recognized channels but rather to volumes which have been unaccounted for for several months.

Before imposing restrictions it is necessary to assess the inconvenience caused by, for example, a check system at the exit, when compared with the temporary frustration of being unable to find a book which has previously been available; thereupon going back to standard textbooks with an all-too-rare burst of enthusiasm stifled.

As to whether missing books can be replaced depends on the powers that be. I maintain that they should be, even if they are kept under some form of additional restriction. As the numbers of replaced books increases so unauthorized borrowing should decline.

This is only a short-term solution but it means that the library continues to serve its purpose while awaiting an answer to what is essentially a long-term problem.

Yours etc.,

J. H. CASSON
Abernethian Room.

1st August.

Engagements

DAVIES—MILNES.—The engagement is announced between Paul Pearce Davies and Molly Elaine Milnes.

GAUCI—SEIGNOL.—The engagement is announced between Charles Leon Gauci and Elaine France Seignol.

GOODALL—ELKINGTON.—The engagement is announced between David Goodall and Miss Barbara Elkington.

HUNT—BARBER.—The engagement is announced between Roger Hunt and Miss Elaine Barber.

LYONS—GOLDMAN.—The engagement is announced between Dr. Alan Lyons and Miss Anne Goldman.

WINTON—TAIT.—The engagement is announced between Dr. Frederick W. Winton and Miss Marah M. Tait.

Marriages

ROBINSON—CROSS.—On May 1st., James Milner Robinson to Diana Mary Cross.

JACKSON—GARRETS.—On July 18th, Dr. John Jackson to Miss Gitta Garrets.

Births

BOWLES.—On July 24, to Anne (née Newbigging) and Dr. Kenneth Bowles, a daughter (Sophie Carolyn Scott).

DOBSON.—On July 26, to Sheila and Dr. John Dobson, a daughter (Caroline Sarah).

MULCAHY.—On August 10, to Jill (née Williamson) and Dr. Desmond Mulcahy, a son (James Patrick Laurence).

Deaths

HILL.—On June 25, Richard Athelstane Parker Hill, M.D., M.R.C.P., aged 84. Qualified 1906.

WOODALL.—On June 28, S. J. Woodall, M.A., M.R.C.S., L.R.C.P. Qualified 1922.

Change of Address

DR. AND MRS. R. MERRY.—to 15 Elizabeth St., Port of Spain, Trinidad, West Indies.

Appointments and Awards

Royal College of Surgeons

Mr. A. H. Hunt has been elected to the Council.

Birthday Honours List

Dr. V. C. Medvei was awarded the C.B.E. (We apologise that this notice was omitted from the August edition.)

September Duty Calendar

Sat. & Sun., 4th & 5th.

Prof. Scowen
Prof. Taylor
Mr. Burrows
Mr. Ellis
Mr. Cope

Sat. & Sun., 11th & 12th.

Sir R. Bodley Scott
Mr. Hunt
Mr. Aston
Dr. Ballantine
Mr. McNab Jones

Sat. & Sun., 18th & 19th.

Dr. Black
Mr. Naunton Morgan
Mr. Manning
Dr. Jackson
Mr. Dowie

Sat. & Sun., 25th & 26th.

Dr. Hayward
Mr. Badenoch
Mr. Manning
Dr. Boulton
Mr. Fuller

Physician Accoucheur for September is Mr. J. Beattie.

FINALS RESULTS

Conjoint Board Final Examination July, 1965

Medicine

Harper, D. R.
Lee, B. C. P.
Crosse, M. M.
Revill, M. G.
Weston Burt, P. M.

Caswell, M. W.
Foot, C. M. R.
Aaronson, I. A.
Bohn, E.
Bartlett, C. L. R.

Surgery

Aaronson, I. A.
Gilsenan, K. L.
McArthur, P.

Bubna-Kasteliz, B.
Husband, P. R.
Smith-Walker, M. T.

Midwifery

Kingsley, P. J.
Hawking, K. M.
Weir, R. L.
Sanders, W. M.

Moore, A. J.
Kersley, J. B.
Kumar, P. J.
Edelsten, A. D.

Pembrey, J. S.
Otti, B. I.
Nightingale, M. D.
McKeown, J. M. I.
Lipsedge, M. S.
Gorvette, D. P. L.
Dorrell, E. D.
Bell, J. M.
Peck, I. M.
Webb, E. M.
Tatham, P. F.
Roberts, P. F.
Pogmore, J. R.
Noonan, C. M.

Clark, T. B.
Burgess, A. M.
Leach, F. C. J.
Woods, P. J.
Turvill, P.
Rudge, P.
Pilling, J. B.
Miller, J. M.
Munro, E. G.
Lindo, F. C.
Gilbertson, R. C.
Fryer, M. E.
Collett, R. W. C.
Bishop, A. N. R.

The following candidates have completed the examination for the Diploma:-

Aaronson, I. A.
Gilsenan, K. L.
McArthur, P.
Weston-Burt, P. M.
Bubna-Kasteliz, B.

Husband, P. R.
Otti, B. I.
Crosse, M. M.
Lee, B. C. P.
Smith-Walker, M. T.

GIRLING BALL MEMORIAL PLAQUE

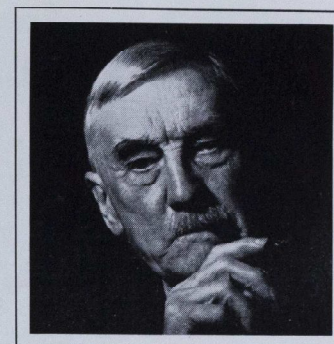


At the instigation of the late Mr. D. S. Pracy, and through the efforts of Dr. Norman F. Smith, the above tablet was raised to the memory of Sir William Girling Ball (1881-1945) by his former house surgeons. The plaque, which was unveiled by the Dean on Tuesday, 27th July, stands at the entrance to the main lecture theatre in Charterhouse Square. It replaces an earlier plaque of Sir William situated in the Medical College Library, formerly the Great Hall of the Merchant Taylors School, and destroyed completely during the Second World War.

Obituary

CHARLES FREDERICK HADFIELD

M.B.E., M.D., F.F.A., R.C.S.



We much regret to report the death of Dr. Charles Hadfield at the age of ninety (less two days).

Dr. Hadfield was born at Birkenhead and was educated at the Leys School and Trinity College, Cambridge. He then went as a research student to the Marine Biological Station at Naples and entered St. Bartholomew's with a Shuter scholarship. He qualified in 1904 and obtained the Cambridge M.D. two years later. After several house appointments he went into general practice at first in Malvern Link and then in north London. During this period, Dr. Hadfield became interested in anaesthetics and was appointed to the honorary staff of the Prince of Wales's Hospital, Tottenham. During the first world war he worked here and at the City of London Military Hospital and in recognition of these services was appointed M.B.E. in 1920. For many years thereafter he worked as consultant anaesthetist at Bart's and lecturer to its medical college. He was one of the triumvirate which raised the standard of teaching to a very high level. Foster Cross was past-master of the art of chloroform administration carrying on the tradition of Richard Gill; Cockie Boyle popularized gas and oxygen in 1916 while Hadders, as he was affectionately termed, remained faithful to ether. He held many appointments and was president of the Section of Anaesthetics of the B.M.A. at its Bournemouth meeting in 1934 having previously held the same position at the Royal Society of Medicine. In 1935 he was elected a vice-president of the Association of Anaesthetists, becoming a senior fellow in 1947. He was also honorary secretary of the joint anaesthetics

committee of the Medical Research Council and the Royal Society of Medicine, later becoming chairman. Dr. Hadfield was the author of *Practical Anaesthetics* published in 1923 with a second edition in 1931. He also wrote a joint paper on trichlorethylene in 1941 and was a Frederic Hewitt Lecturer.

Dr. Hadfield had many other interests and was a keen mountaineer. Besides being a member of the Alpine club he was a past president of the Fell and Rock Climbing Club and of the Bart's Alpine Club. One of his feats took place in 1923 when he became the first man to stand on the highest ground in England, Scotland and Wales on the same day. His last walk to the summit of Ben Nevis was at the age of 77. Dr. Hadfield was also an enthusiastic motorist: in August 1914 he was camping in the Black Forest with an A.C. three-wheeler. He managed to get home after arrest but had to leave the car behind. It was returned after the war and used for his practice. In the 1920's he drove from London to John O'Groats in a day with his 11.9 h.p. Alvis. After he became too old to drive, he took up cycling and acquired a new machine on his 80th birthday. Mrs. Hadfield died in 1960 and we offer our most sincere sympathy to his two sons and daughter.

C.L.H.

A Service of Remembrance for the late Dr. Hadfield was held in the church of St. Bartholomew-the-Less on Monday, 26th July, 1965, at which many of his old colleagues and friends were present.

Retirement

JAMES CECIL HOGG

Bart's 1930-1965

James Cecil Hogg was born at West Hartlepool at the turn of the century. At the age of 5, his father's business necessitated a move to Riga on the Baltic, where he lived until he was 13. Although he missed the doubtful advantage of an English preparatory school education at least he acquired fluency in both German and Russian.

On his return to England he entered Haileybury College where in the course of time he became head of his house, and played for the school in the First XV. Being on the classical side at school, a period of intensive cramming in science enabled him to enter Caius College, Cambridge to read for his medical degree. He entered Cambridge during the exceptional phase following the First World War when study was not necessarily the main pre-occupation of an undergraduate.

On arrival at Cambridge he secured a Freshers' Trial but did not persevere with serious Rugby, and relapsed into social Rugby with the Caius Wanderers. Throughout his time at Caius he played tennis for the College, and was also a member of the Footlights.

From Cambridge to Bart's in a large and notable Cambridge intake, to dress for Mr. Rawling on the Green firm, Frankis Evans being the House Surgeon. At Bart's he played Rugger occasionally for the A XV, but trouble with an appendix necessitated giving it up. However, he continued to represent the Hospital at tennis.

He qualified first by Conjoint in October 1925, as was then the custom; he proceeded to his University degree three months later. His first house appointment was to Sir Charles Gordon Watson and Mr. Vick, and subsequently he was appointed House Surgeon to Mr. Douglas Harmer and Mr. Sydney Scott in the Throat and Ear Departments.

Having now decided on a surgical career he studied for his primary F.R.C.S. at St. Mary's Hospital in the days when most of the medical schools ran their own primary F.R.C.S. classes. Unfortunately at this time a suspected pulmonary infection necessitated a period of

convalescence in Switzerland. Interruption of his training had some compensation, however, for he became an accomplished skier, and in subsequent years rarely missed his annual visit to the snows. He was a member of the British Ski Club, and was awarded the silver medal in 1928. He is also a member of the distinguished Down Hill Only Club of Wengen.

Whilst preparing for the final Fellowship he spent a short period as a locum in country general practice, an experience and training which many consultants lack. This was followed by a period as R.M.O. at St. Charles Hospital, Paddington. Here 700 beds were shared by three R.M.O.s, he being the only surgeon, so that an incredible amount of surgery was experienced in a short space of time. The final Fellowship then presented no difficulties and was passed in 1930. He was immediately appointed Chief Assistant to the Throat Department on Fred Capps' promotion to the staff.

In 1931 he was appointed to the staff of the Golden Square Throat, Nose and Ear Hospital and shortly afterwards, as was then the fashion, he went to Vienna where he worked in Hajek's Clinic.

His next appointment was as E.N.T. surgeon to the King George Hospital, Ilford, where he served until recent years.

Shortly before the war he was appointed Laryngologist to the Brompton Hospital, and when war was declared he joined in the Brompton arrangements under the Emergency Medical Service and was posted to the Horton Emergency Hospital near Epsom.

At the end of the war, when the Throat and Ear Departments at Bart's were amalgamated, he was appointed to the staff of the Ear, Nose and Throat Department, of which he became head in 1963 on Fred Capps' retirement.

During this period many honours came his way. He was Secretary to the Sections of Laryngology and also of Otolaryngology of the Royal Society of Medicine, later to be elected President of the Section of Laryngology, and Vice-President of the Section of Otolaryngology.

At the 4th International Congress of Otolaryngology held in London in 1949 he was personal assistant to Sir Victor Negus, President of the Congress.

He has done much for the speciality through the British Association of Otolaryngologists, of which he has been Treasurer. He was Chairman of the Co-ordinated Committee of the First British Congress of Otolaryngology held in London in 1962. He was for many years a member and recently held the office of President of the visiting Association of E.N.T. Surgeons of Great Britain.

He followed such distinguished men as Felix Semon, Sinclair Thomson, and Omerod as Consultant Laryngologist to the King Edward VII Hospital, Midhurst.

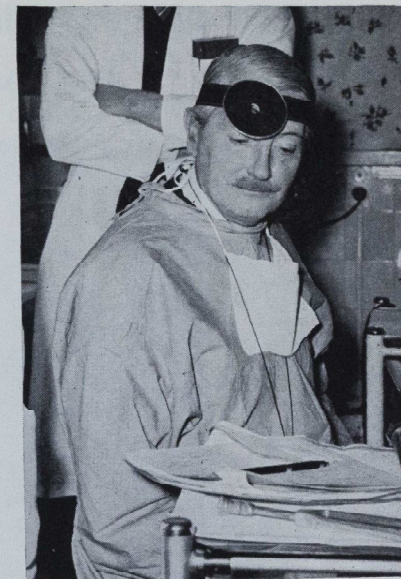
In 1960 on the retirement of Gill Carey he was appointed Dean of the Institute of Otolaryngology and Laryngology in the British Post-Graduate Medical Foundation at the Royal National Throat, Nose and Ear Hospital, and has done much for post-graduate education in the speciality.

In 1961 he was officially gazetted Aurist to Her Majesty the Queen, having acted as such for several years previously for which the honour of C.V.O. was conferred in 1960.

Amongst his social activities at Bart's, he was elected a Member of the Fountain Club in 1938 and was Master in 1961.

Cecil Hogg's time as head of the Ear, Nose and Throat Department has been regrettably short, and for most of his time on the staff his in-patients and his operating have been out in the wilderness at Hill End. It is the third retirement from the staff of the department in the space of four years.

He has recently acquired a house in the country at Munstead near Godalming, favourite



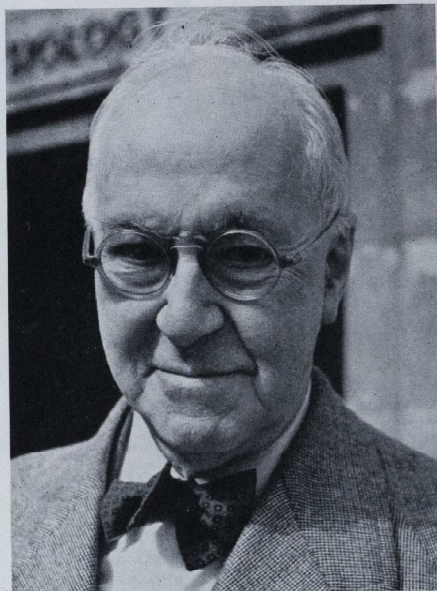
haunt of the phantom puma, and has become an enthusiastic gardener.

We wish him well on his retirement, and trust that his busy practice, which he will continue from his house in Upper Harley Street, will permit some leisure time for the enjoyment of such pursuits that his very full professional life may have denied him.

J.W.C.

SIR HENRY DALE : His Contributions to Science

by Professor M. de Burgh Daly



Photograph kindly supplied by Dr. H. E. Lewis.

Sir Henry Dale celebrated his ninetieth birthday on 9th June, 1965, and this is, therefore, a welcome occasion for us to salute a distinguished and much honoured Bart's man, and to reflect on what science in general and scientists themselves owe to him. He has himself contributed to the advancement of knowledge in so many aspects of medical science—physiology, pharmacology, biochemistry, medicine and therapeutics, that familiarity with his own publications alone is an education in itself. But Sir Henry has always been much more than an outstandingly successful experimenter. His impact on the development and direction of medical science generally has been of major importance, and this has come about not only in his capacity as Director of the National Institute for Medical Research,

but also as Secretary and, later, as President of the Royal Society.

Sir Henry went up to Trinity College Cambridge in 1884. Among his teachers were some of the great physiologists of those days: Michael Foster, W. H. Gaskell and J. N. Langley, the latter then working in collaboration with H. K. Anderson on the functions of the autonomic nervous system. Considerably stimulated by the work going on in the Department of Physiology, Sir Henry obtained a Coutts-Trotter Scholarship at Trinity College in 1898 to enable him to spend two years carrying out research with Langley. Following this he decided to complete his medical course and entered St. Bartholomew's Hospital in October 1900. After qualifying he was offered another opportunity of doing research, and

instead of accepting a post of house-physician at the Hospital, took up an appointment as George Henry Lewes Student in the Department of Physiology at University College, where E. H. Starling and W. M. Bayliss had just discovered the hormone secretin. The latter months of his studentship were spent in Paul Ehrlich's Institute in Frankfurt. On his return to London, he was awarded the Sharpey Scholarship at University College, but almost immediately was approached by the late Henry S. Wellcome, then sole proprietor of the pharmaceutical business Burroughs Wellcome and Company, with a view to his working in the "Wellcome Physiological Research Laboratories" which had been established in Herne Hill, London. It was here that Sir Henry, as director of these laboratories from 1904-1914, did much of his classical work on the pharmacological actions of ergot and of histamine.

Then in 1914, he began his long association, lasting some twenty-eight years, with the Medical Research Council, being in turn head of the Physiology and Pharmacology Division of the new National Institute for Medical Research, at that time in Hampstead, and from 1928-1942, Director of the Institute.

To do justice to Sir Henry's contributions in the fields of medicine and science would require a volume. One of the first problems he investigated at the Wellcome Physiological Research Laboratories was his now classical study on the actions of ergot. With G. Barger and F. H. Carr, he isolated a crystalline, pharmacologically active substance, ergotoxine, which was shown to have a "sympathicolytic" action and as a result this drug has proved a useful "tool" in the analysis of the nature of the autonomic innervation of many organs of the body. Subsequent studies carried out by H. W. Dudley and simultaneously by workers in a number of other countries led to the discovery in 1935 of a new ergot alkaloid, ergometrine, which is now used widely in obstetrics.

An accidental observation made in the course of these studies on ergot led to another discovery, the oxytocic action of extracts of the posterior lobe of the pituitary gland. While using pituitary extract in one experiment as a control vasopressor drug, he noticed that its effect on blood pressure was not reversed by ergot as was that of adrenaline and sympathetic nerve stimulation. It happened, however, that the tone and rhythm of the cat's uterus, an early pregnant one, was being recorded as well; and so by chance, the potent stimulating

action of the extract on the smooth muscle of the uterus was observed.

Another substance studied intensively by Dale and his co-workers (G. Barger, P. P. Laidlaw, A. N. Richards, H. W. Dudley and C. H. Kellaway) was β -iminazolyethylamine or histamine. Their demonstration of its natural occurrence in the body, its potent dilator action on capillaries, and the profound and irreversible nature of its hypotensive action, had a great impact on clinical thought, in particular with regard to the mechanisms underlying allergic reactions, anaphylaxis and shock. This relationship of histamine to anaphylaxis ultimately resulted in the synthesis of numerous antihistamine compounds which are now of such value in the treatment of many conditions with allergic manifestations.

An observation with a peculiar ergot extract which caused slowing of the heart on intravenous injection, put Sir Henry on to a new trail, that of the pharmacological actions of certain esters and ethers of choline, including acetylcholine. He was the first to recognize the dual nature of the activity of these substances, which he described as "muscarine-like" and "nicotine-like", and being impressed with the remarkable fidelity with which acetylcholine reproduced the responses to stimulation of parasympathetic nerves introduced the term "parasympathomimetic" to characterize its effects. Then followed the first real proof of the chemical mediation of nerve impulses through the peripheral release of a specific chemical agent in 1921 by Otto Loewi, with whom Sir Henry was to share the Nobel Prize for Medicine some fifteen years later. The properties of Loewi's "vagusstoff" obtained from the isolated frog's heart were similar to those of acetylcholine which Dale and Dudley later showed to be a normal constituent of the body. This together with other evidence strengthened the view that acetylcholine was the chemical transmitter at parasympathetic postganglionic neuro-effector junctions. It was again Dale and his colleagues (G. L. Brown, W. Feldberg, J. H. Gaddum and M. Vogt) who extended this work to demonstrate that acetylcholine was also liberated during synaptic transmission through the sympathetic ganglion and at the skeletal neuromuscular junction. The two terms he introduced, "adrenergic" and "cholinergic", to describe two types of fibre in the autonomic nervous system, based on the chemical transmitter liberated in relation to their endings, passed readily into general use and have provided us with a very handy nomenclature from which

we may distinguish chemical function and anatomical origin.

This was the culmination of a series of papers on the subject of chemical transmission which stretched over nearly a quarter of a century and from which developed a number of advances of clinical importance. Neostigmine was introduced in the treatment of myasthenia gravis and also as an antagonist of tubocurarine in anaesthesia. The demonstration of humoral transmission in ganglia led in turn to a study of the pharmacological properties of the methonium compounds and to the introduction of hexamethonium as a hypotensive agent to ensure a bloodless field in surgery. Developments in the field of research pertaining to the nature of the chemical transmitter liberated by sympathetic postganglionic nerves were no less exciting: there followed from the United States of America the idea that there are two kinds of postganglionic "receptor", which led to a search for specific α and β sympathetic blocking agents. The role of these compounds in clinical medicine is still being evaluated.

I would now like to turn to a different aspect of Sir Henry's work. Following the discovery of insulin in Toronto by F. G. Banting and C. H. Best in 1922 he became closely associated with its production in this country. The manufacture of this unstable hormone in a sufficiently purified form for subcutaneous injection presented many difficulties and he was instrumental in bringing together two large pharmaceutical firms, Allen and Hanburys and British Drug Houses, who were interested in combining their resources to devise a successful commercial process. But the problem did not end here. A serious obstacle to progress in purification of insulin was the lack of a reliable method of standardization. This problem was studied intensively by H. P. Marks, under the direction of Sir Henry. The method finally evolved was based on comparison of the hypoglycaemic effect of each preparation of insulin with that of a standard preparation specially kept for the purpose. This technique was basically the same as Ehrlich's method for standardizing diphtheria antitoxin.

This constituted an important advance which had far-reaching consequences, for it had a wide influence on the biological standardization of many other substances. Furthermore, about this time (1923), the Health Organization of the League of Nations arranged a conference in Geneva, under Sir Henry Dale's chairmanship, to discuss the establishment of international standards for drugs. This was an

outstanding success for not only did it achieve its object but also laid the foundation for several later conferences which extended the list of substances for which international standards are available. Since the second World War, this work has been continued under the aegis of the World Health Organization.

These few examples of Sir Henry's discoveries indicate his contribution to the whole range of physiology and of basic medical science, and illustrate the impact his work has had on clinical medicine. Who for instance could have foreseen that a study of the pharmacological actions of an extract of ergot would lead to the appreciation of the beneficial oxytocic effect of the hormone of the posterior pituitary gland, to the discovery of acetylcholine as a transmitter of nervous impulses or to the recognition of histamine as a substance of such wide biological significance? Part of the secret of his success must lie in the clarity of his ideas about the subject engaging his attention, which makes his papers a pleasure to read. Although he would be the first to admit that he has probably had his fair share of "strokes of good fortune" in the course of his research career, it is nevertheless the hallmark of a great scientist that he recognizes the significance of such chance observations when they occur, designs and performs the crucial experiments and finally points out the strategy for future work.

Since 1936, Sir Henry has been associated with the Wellcome Trust. This Trust, created in that year by Sir Henry Wellcome's will, is a grant-giving charity, corresponding to other charitable foundations, and uses its resources for the support of medical research and scholarship anywhere in the world. First as a Trustee, and then from 1938 to 1960 as Chairman, Sir Henry Dale has brought his unrivalled experience and knowledge to bear again on the promotion of basic medical research. Indeed, the Trustees continue to receive advice from him, as Scientific Consultant, on all matters pertaining to the policy of the Trust.

In spite of his heavy responsibilities with the Medical Research Council, the Royal Society and, more lately, the Wellcome Trust, he has never failed to remain a friend and adviser of many colleagues, both senior and junior, whose good fortune it has been to be associated with him.

We take this opportunity of sending Sir Henry our heartfelt congratulations and good wishes on this memorable occasion.

The Orthopaedic Department

by H. JACKSON BURROWS

Possibly we can date the St. Bartholomew's Orthopaedic Department from 1596, when the Governors appointed John Izard to be bone-setter to the Hospital, taking over a side-line formerly practiced by the Hospitaller! The name orthopaedics was not coined till 1741, when Nicolas Andry, at the age of 80, published *L'orthopédie, ou L'Art de Prévenir et de corriger dans les Enfants, les Difformités du Corps*.^{*} Orthopaedics appertains literally to the straight child, but it has long since ceased to be concerned with children alone. As the title connotes, prevention has always been emphasized, and this explains the interest in fractures, the various forms of arthritis and of paralysis, and other potential sources of deformity, whether in children or in adults. Even more important than prevention of deformity, and often going hand in hand with it, is the preservation of function.

Those who suppose that British Orthopaedics began with Hugh Owen Thomas (1834-1891) and Robert Jones (1857-1933) in Liverpool do less than justice to others who have played a great part in the development of what we now call orthopaedics. At our own Hospital there come to mind the names of Percivall Pott (1714-1788) in relation to Pott's fracture and Pott's disease of the spine, and James Paget (1814-1899) in relation to osteitis deformans and such lesser conditions as osteochondritis dissecans (so-called König's disease), tibial apophysitis (so-called Osgood-Schlatter disease),

and congenital tibial bowing and pseudarthrosis. Other contributors have included Edward Stanley (1793-1862), and Thomas Smith (1833-1909) with his classic description of acute epiphysitis of infancy, his account of osseous changes in scurvy, and his original description of actinomycosis, a disease affecting bone by implantation or by direct spread. John Heddy James (1788-1869), who was House Surgeon at Bart's, surgeon to the First Life Guards at the Battle of Waterloo and later Surgeon to the Devon and Exeter Hospital, introduced continuous weight traction in the treatment of fractures very many years before Buck after whom it is named in America.

Orthopaedic patients were partly segregated in 1867 in separate out-patient sessions under the charge of a junior assistant surgeon. The first holder, Alfred Willett (1837-1913), was followed by F. Howard Marsh (1838-1915), a pioneer in the conservative treatment of tuberculous joints and a future Regius Professor at Cambridge.*

An orthopaedic department in the proper sense was first established in 1912—the second in London—and was placed in charge of Reginald Cheyne Elmslie (1878-1940), probably the greatest orthopaedic surgeon and Bart's surgeon of his time. As with all emergent special departments, shortage of beds was a besetting problem. On Elmslie's appointment in 1912, eight beds were allotted; in 1914 they were reduced to four, and then in 1928 increased to

*The late R. C. Elmslie gave his copy of the English Edition of this book published in 1743 to the writer, and it remains one of his most treasured possessions. This is what Andry says, "As to the Title, I have formed it of two Greek Words, viz. ὀρθός which signifies straight, free from Deformity, and παιδίον a Child. Out of these two Words I have compounded that of *Orthopaedia*, to express in one Term the Design I propose, which is to teach the different Methods of preventing and correcting the Deformity of Children."

* Much of his work was done at the Alexandra Hospital for Hip Disease, which was founded in 1867 and became officially associated with Bart's. It occupied the site of the present examination hall in Queen Square. In 1920 it moved to Swanley, whence it moved in 1940 to temporary premises at Luton. After the war, under H. B. Lee, it was very active in the wide field of children's orthopaedics, in spite of the decline in tuberculosis, but nevertheless the Ministry of Health, faced with the need for permanent buildings, closed it in 1958. Its history is given in the Journal of January 1958, 62, 10.

ten on Elmslie's tendering his resignation, which was not accepted. In 1930, eighteen beds were allotted and a basement theatre was opened, and so matters remained till the outbreak of war, when there were ten patients waiting for every bed.

On 1st September, 1939, the in-patient orthopaedic department moved, under the E.M.S. to Hill End Hospital at St. Albans, with 200 beds, and to Friern Hospital (formerly Colney Hatch Asylum) in north London, with 60 beds in Hogarthian surroundings. These beds at both hospitals were intended for civilian and military casualties, but the "phoney war" enabled the long civilian waiting list to be worked off. At Hill End, Mr. S. L. Higgs, R. C. Elmslie's successor, ran an official orthopaedic unit with a scratch team. The Friern beds closed at the end of the war, but the diminishing orthopaedic department was not to return to Bart's from Hill End till 1960, 21 years from its exodus. The new block intended to receive the special departments had been built with such prodigality of space that it could accommodate only the smaller departments. The orthopaedic department was put in its present temporary provision comprising two orthopaedic wards, a fracture ward, clinical rooms and a theatre, in the West (1753) and East (1766) blocks.

Physiotherapy

In 1910, on the initiative of R. C. Elmslie while still Chief Assistant, a massage department—the future Physiotherapy Department—was started as part of the orthopaedic department. It has so remained except for a brief and disastrous interregnum soon after the second world war. It is virtually certain that the Physiotherapy Department, though remaining closely associated with the Orthopaedic Department, will come under a separate director. We hope that it will be given worthy accommodation. There is a case for establishing a school of physiotherapy, like those at St. Thomas's, Guy's, the Middlesex, the London, K.C.H. and St. Mary's, but preferably with an associated school of occupational therapy. In the meantime, thanks to Miss Wareham, the department forms one of the best post-graduate training grounds for physiotherapists, and membership of its staff is consequently much sought after. This means that, in spite of the lack at present of such important facilities as a pool, our patients enjoy a standard of physiotherapy that is unsurpassed.

Accident surgery

Demands for and standards of accident surgery have greatly increased in recent years. Whereas the establishment of accident departments—and still more accident hospitals—would be a retrograde step, a highly efficient accident service is required of any hospital accepting accidents. This means at least an administrative machine that includes efficient reception arrangements much in advance of those usually associated with the name "casualty department", and subsequent mobilization of the great resources of a hospital like ours so that they are brought to bear at the right time upon a case. Because most accidents involve the limbs and because of the orientation of most orthopaedic surgeons, it is usual to place such departments in charge of orthopaedic surgeons. Bearing in mind that no orthopaedic aspirant is now made a consultant unless he has had an adequate training in general surgery, this is proper, but whoever is chosen, whether orthopaedic surgeon or someone else, must have organizing ability and above all the complete confidence of his colleagues as a man of integrity and impartiality. At Bart's, we are all unhappy about the reception of accident patients, and improvised improvements are being made, though a proper lay-out will have to await rebuilding of the out-patient block. Nobody likes the arrangement whereby patients with fractures have often to be admitted to general wards where they occupy beds needed for other purposes, but pending more fracture beds and better provision for discharged patients this remains in some measure inevitable. The policy in regard to orthopaedic beds, drawn up in 1943, is 75 beds inclusive of fracture beds. If this is achieved, it should be possible to avoid the necessity for putting patients with major fractures into general wards.

The institution of fracture clinics before the last war greatly improved the supervision of fracture treatment, both immediate and later right up to return to work. Similar improvements have not occurred with such difficult and often disabling injuries as severed tendons; and there is a case for developing limb-injury clinics out of the present fracture clinics in collaboration with other departments. This was strongly supported by W. Derrick Coltart (1907-1963), who did so much to develop fracture treatment within the Hospital and whose early death was a great loss to the Department and to the Hospital as a whole.

Teaching

While the teacher of a subject must be master of it, including its growing margins, and while the General Medical Council lays down no more than that in special departments (other than pathology and paediatrics) the student needs to be able to recognize and treat the commoner conditions, in fact the chief duty of the "specialist" teacher, no less than that of the "general" teacher, must be to contribute to the making of good doctors by building on the basic sciences (by now largely forgotten by the satiated pre-clinical student) the powers of observation and deduction. Probably no branch of medicine lends itself so readily to these things. This is education. We can only add it to the student's endowment of intelligence, which, being innate, no man can alter. If to these two—intelligence and education—we can add that rare jewel, wisdom, we should create a good doctor.

As long ago as 1861 a Lectureship in Orthopaedic Surgery was founded, the first incumbent being Holmes Coote (1817-1872), and from 1867 there was a Demonstrator of Orthopaedics, usually the surgeon in charge of the department. The first Chief Assistant was appointed in 1903, and a non-resident House Surgeon in 1910. Didactic teaching by orthopaedic lectures hardly occurs at Bart's, and some would think this a good thing, even though lectures are voluntary. Every year in the tradition of Paget, Howard Marsh and Elmslie, a lecture is given on so-called "manipulative treatment" to supplement what every student is at liberty to witness (but seldom does) in the department itself and in the physiotherapy department. Nearly all the clinical teaching takes place in the out-patient department, where the largest clinical classes in the Hospital are a challenge to the teacher and sometimes to the patient. In 1908 it was decided that dressers should take notes on the orthopaedic in-patients, but this practice has long died out. It is a pity that the wealth of teaching material in the orthopaedic wards is not put to more regular use. In 1943 the Policy Committee of the Medical College recommended that students should be attached to the Orthopaedic Department for a period of 3 months and attend both in-patient and out-patient sections. It is almost certain that this recommendation will be put into effect shortly, but with the duration halved.

Research and Development

Reference has been made to some of Elmslie's work, which covered also such fields as

osteochondritis juvenilis, calcareous deposits in tendons and many pioneer clinico-pathological investigations. He undertook one of the very early graphic investigations of normal and pathological gaits. On the surgical side, he introduced: the full operation of realignment of the extensor apparatus for recurrent dislocation of the patella, which he recognized as a misnomer; fascial reconstruction of the lateral ligament of the ankle, based on the true anatomical state; and medial release for congenital talipes equino-varus, although his name became erroneously attached to a more extensive operation that he very rarely did.

Since then, work has been carried out on such various matters as manipulation of joints, heterotopic ossification, avascular necrosis of bone, cancellous bone grafting, osteoporosis, fatigue fractures, excision of locally malignant bone tumours with massive prosthetic replacement, the pathology of the rotator cuff of the shoulder, the pathology of recurrent dislocation of the sterno-clavicular joint and successful tenodesis based on this, the surgery of deformities from defective epiphyseal growth, the physiology of shoulder movement in relation to cervical spondylosis, subtalar movement in the normal subject and after calcaneal fracture, the surgery of osteo-arthritis and lately of rheumatoid arthritis, and so forth.

Links with Other Departments

Every special department should and must have links with other departments. We have close ties with, among others: general physicians and general surgeons, including those interested in peripheral vascular disease; neurologists and neurosurgeons; plastic surgeons; morbid anatomists, bacteriologists, biochemists and clinical pathologists; radiologists; and paediatricians. Collaboration in paediatrics is however perhaps seen at its best at Chailey Heritage, largely a Bart's stronghold run consecutively by Mr. V. C. Snell, Dr. E. E. Harris and Dr. E. P. Quibell, all Bart's men, and attended by all the Bart's orthopaedic consultants as well as Dr. Aldren Turner, Mr. Percy Jayes and Mr. Ellison Nash. In its early days the plastic department at Bart's shared the services of the orthopaedic house surgeon through the kindness of Elmslie. Special note should perhaps be made of the pathology department. Elmslie spent five years in that department; and, bringing pathology to orthopaedics in the spirit of James Paget, he made great contributions, especially in the field of bone cysts, fibrous dysplasia, and

hyperparathyroidism, and again in the elucidation of the various forms of coxa vara. On his rounds he would see for himself the orthopaedic pathological material of the week, which was then stored and indexed in the department. All this ended with the war and the department's twenty-one years' exile, and with the present pressure on the pathology department, has never been restored though a close liaison is now becoming re-established. The late W. D. Coltart also spent part of his training in the pathology department.

It is a platitude that interest in patients cannot be confined to purely medical matters. Outpatients, especially the disabled, often have social problems, commonly increased when they are to come into hospital, and there are often special domestic and employment problems when they leave. These problems need close collaboration with social workers.

The Present Department

The present department includes 36 orthopaedic beds and 19 fracture beds. The medical staff consists of a surgeon-in-charge, who is also clinical lecturer in orthopaedic surgery, two orthopaedic surgeons, a chief assistant, two registrars and three house surgeons, together with two associate orthopaedic surgeons and an associate chief assistant who are not concerned with the treatment of in-patients but are of great help in the large out-patient department. The registrars act in rotation as registrar to the physiotherapy department in which clinics are also held.

Curiously, the orthopaedic department is entirely housed in temporary premises. It has no out-patient department, tenanted the surgical out-patient department on two afternoons a week; its fracture clinics are held in two surgery boxes; the wards and theatre are in buildings 200 years old; and the physiotherapy department is in the old surgery vacated half a century ago. The adaptation of the old buildings has been cunningly done within the obvious limitations imposed. The wards overlook the square in front and two have small patios at the back kept bright with flowers and shrubs by the sisters. We shall be sorry one day to leave them, but what delightful Abernethian and staff rooms they would make!

The Road to Orthopaedics

The would-be orthopaedic consultant must of course acquire his F.R.C.S.; and his general

surgical training must include the usual posts up to and including one year, and preferably more, as a Registrar in general surgery, not necessarily in a teaching hospital but at a good, busy general hospital in a post equivalent to that of Resident Surgical Officer. In 1968, at least one year as Registrar in General Surgery will become obligatory for all F.R.C.S. Candidates. He will be wise to get his Fellowship and complete this post before becoming involved in orthopaedics beyond the post of H.S., S.H.O., or equivalent. Once he starts on his full training in orthopaedics he need worry no more about examinations and is free to concentrate on fitting himself for his profession, unless he wishes to take a Doctorate in Medicine or a Mastership in Surgery, or possibly to spend a year in Liverpool qualifying for the M.Ch.Orth. examination of that University. He needs to serve at least two years as an orthopaedic registrar, and he will naturally choose a well-regarded centre, if he can, where he will get training as well as experience. These he must have in both "cold" orthopaedics and trauma. There is still a tendency to expect him to have also some experience of a "long stay" orthopaedic hospital, where the decline of tuberculosis and poliomyelitis has made way for such things as rheumatoid arthritis and spina bifida. Some practical experience in plastic surgery is virtually essential, and it is also a great advantage to have served in some capacity in a thoracic unit and a neurosurgical unit. It is likely to be decidedly more than two years before, if he is lucky and good enough, the aspirant becomes a Senior Orthopaedic Registrar and so virtually assured of consultant rank. If he reaches this he is a first-class man, and his selection will depend not only on his academic background but even more upon the standing of posts that he has filled. Much therefore depends upon how he has planned his training, and in this he should seek all the help he can from his chiefs. In the foreseeable future there should be no shortage of consultant posts, and the aspirant should examine very carefully any post before applying for it, lest he land himself with one likely to prove unsatisfying.

The training described is arduous and directed to making a competent surgeon. It leaves less time for experience in research than some of us would like to see. Apart from the value of this in making the whole surgeon, some experience in research and a reasonable amount of published work do give the worldly

advantage of commending him to some members of appointment committees.

Orthopaedics has many fascinations: the application of mechanical, anatomical and physiological facts; the field for research; the clientele of both sexes of all ages; the social implications; and above all the satisfaction of its preventive and reconstructive aspects.

In this country, orthopaedic surgeons have a warm fellowship, very evident in the British Orthopaedic Association. This has close ties with the American and various Commonwealth orthopaedic associations. These award highly prized travelling fellowships for small parties of young American and Canadian orthopaedic surgeons to visit the United Kingdom, alternating with similar parties of U.K. and Commonwealth young men to visit North America. Thus future leaders exchange ideas from an early stage. Every few years a joint meeting is held of the orthopaedic surgeons of the English-speaking world. The Journal of Bone and Joint Surgery, the organ of all these associations, is published partly in the U.S.A. and partly (for the British Commonwealth) in the U.K. The young orthopaedic surgeon thus

joins an international brotherhood that is unique.

As a reminder that Bart's is something much bigger than a cloistered community in the City of London, be it said that Bart's leaders in orthopaedics are almost obtrusively prominent all over the world, at home and abroad, and this largely from R. C. Elmslie's legacy of disciples.

Final Comment

This chronicle might suggest that the Bart's orthopaedic department is an unhappy one. It is true that we are far from complacent and that we often wonder whether the word "temporary" means anything at Bart's at all; but nevertheless we are a very happy department, as indeed we should be. Within the department itself we are a band of brothers (and sisters); and beyond it we are at peace with our neighbours, for we have the good fortune to belong to a Hospital with a happy staff free from enmity. This has not always been so.

In closing I have to acknowledge help from colleagues and particularly from Mr. J. Thornton's historical account of the Department published in the Journal of June 1955, 59, 171.

at Charterhouse

Submitted "in lieu of the last question" in a Biochemistry Terminal Examination.

A or B or C or D

Can show your grasp of Chemistry,
But in my brain there runs a vein
Which constitutes a knowledge drain.

'If one goes up when two comes down,
Write B unless the stuff goes brown,
In which case mark it with a D,
But if you're wrong it's minus three.'

I know they like in U.S.A.
To grade you the objective way,
But, the hunted 'gainst the hunter,
I prefer subjective shunter.

medicine in literature

WILLIAM

An extract from 'William Again' by Richmal Crompton
(Published by George Newnes Ltd.)

Great-Aunt Jane was sitting up and looking quite bright.
"He certainly lends an interest to life. I feel ever so much better since he came. You might send him up now, if he's in, nurse, will you?"
On her way the nurse met Uncle John.
"How long is this young ruffian going to be here?" he said furiously. William had successfully dispelled the air of hallowed gloom from the house. "He's sent my nerves to pieces already—what his effect on that poor sufferer must be—"
"He seems to be strengthening *hers*," said the nurse. "She's just sent for him."
"That means a few minutes peace for the rest of the house, at any rate," he said.
William entered the sick room sullenly. He was thoroughly bored with life. Even his enemy, Fatty, was not to be found. Fatty retired every afternoon with his mother to lie down.
"Good afternoon, William," said Great-Aunt Jane, "are you enjoying your visit?"
"Well," said William vaguely, striving to temper truth with politeness, "I wun't mind going home now. I've had enough." He sat down on her bed and became confidential. "We've been here for weeks an' weeks—"
"Four days," amended Great-Aunt Jane.
"Well, four days, then," said William, "an' there's nothing left to do, an' they make a fuss if I make a noise; an' I've got a lizard in a box at home and I'm tryin' to teach it tricks, an' it'll have forgot me if I stay here much longer. It was just gettin' to know me. I could tell by its eyes. An' they might forget to feed it or *anything*—there's nothing to *do* here, an' mother's not been well since the sea made her sick, an' I keep sayin'—why wait till she's all right to go back—case the sea makes her sick again, better go back while she's feelin' bad and get it all over again without the fuss of gettin' all right and then gettin' bad again; an' I keep sayin', *why* are we stoppin' here an' stoppin' here an' stoppin' here—an' everyone sayin' 'Sh!' when you make a noise, or sing, or anything. I say—why?"
Great-Aunt Jane's sunken lips were quivering, her eyes twinkling.
"And why are you stoppin' and stoppin' and stoppin'?"
"She says 'cause you're not out of danger, and we must stop till we know which way it is. Well," he waxed still more confidential, "what I say is, surely you *know* which way you're goin' to be. Can't you tell us? Then if you're goin' to get better we'll go, an' if you're not—"
"Yes, what then?" said Great-Aunt Jane.
"Then we'll go, too. You don't want me hangin' round when you're dyin' ", he said coaxingly. "I'd like as not make a noise, or something, and disturb you—and that lizard might have got out if I go waitin' here much more—like wot that mouse did."
Great-Aunt Jane drew a deep breath of utter content.
"You're too priceless to be true, William," she said.
"Can't you tell me which way?" said William ingratiatingly.
"Yes," said Great-Aunt Jane, "I'm going to get better."
"Oh, crumbs!" he said joyfully. "Can I go and tell mother to pack?"
"You've turned the corner," said the doctor to Great-Aunt Jane an hour later
"We needn't worry about you any more. All these relations of yours can pack up and go."
"William's packed already," said the nurse, "That boy is a cure!"
Great-Aunt Jane laughed.
"Yes, he's a cure, all right," she said.

Διάγνωση

by C. R. W. Edwards

A 62-year-old retired schoolmistress presented complaining of fatigue, palpitations, breathlessness, chest pain and vomiting. Her history was that for ten to twelve years she had had a central epigastric pain associated with meals; sometimes coming on immediately after food, and also precipitated by hunger. In the latter case the pain was unrelieved by food. The pain was relieved at first by antacids but at the time of admission they had no effect. In the three months before admission she had intermittent nausea and retching with some vomiting. This had become worse recently and the vomiting on some occasions was projectile. The vomit contained neither solid food nor altered blood. The pain was relieved by vomiting. She had a feeling of distension and an increase of flatus both up and down. She was normally constipated, having her bowels open once every two to three days, and there had been no change in her bowel habit. There was no blood or mucus. Her appetite was very poor and she thought that she had lost about one stone in the six weeks before admission. She couldn't eat big meals and preferred small snacks. In the urinary system there was no increased frequency of micturition and there was no nocturia. She had no pain or burning on passing urine nor any change in its colour.

Six weeks before admission she had suddenly felt ill whilst shopping. She had palpitations and a substernal pain that was like someone standing on her chest. The pain went through to her back and down her left arm; it was relieved by rest and was subsequently brought on by exertion. The pain produced no vomiting or nausea. She had no palpitations at rest but any slight work produced them. Subsequently she had no swelling of her ankles and no orthopnoea. There was no relevant previous history. As regards the family history, her mother had had a renal growth.

On examination she was a fit looking woman with no visible evidence of loss of weight. Her fundi were normal and her tongue was dry and furred. Her thyroid was just palpable but there were no nodules. In her respiratory system there were no abnormal physical signs found. In her cardiovascular system her pulse was 76, regular, good volume and her B.P. 130/85. The apex beat was not displaced and there was no gallop rhythm or murmurs. In the abdomen there was a palpable and ballotable mass in the left hypochondrium. The medial and lateral borders were reasonably easy to define giving a transverse diameter of about 2.5 inches. The superior and inferior margins were not easily defined. The mass moved with respiration, was not tender and had no palpable notch. The abdomen was obese and no change in percussion note was detected. Bowel sounds were normal. The liver was palpable one fingerbreadth. The right kidney was not felt.

Investigations:

Haemoglobin 106%; W.B.C.'s 5,300/cu.mm.; Blood urea 48 mg./100 mls.

Urine. Clear yellow, pH 6. No protein. Excess of leukocytes. Moderate number of R.B.C.'s. No casts. Proteus growth: probably extraneous.

Chest X-ray normal; E.C.G. normal.

Barium meal: "Evidence of a fairly large and probably somewhat lobulated mass in the abdomen displacing the stomach, duodenum and proximal small intestine to the right. The colon does not appear to be involved or much displaced by the mass which seems to be retroperitoneal. It is not clear whether this is pancreatic, renal or some form of retroperitoneal tumour."

Intravenous pyelogram: "Normal right kidney. Left kidney very considerable enlargement of the lower two thirds; no renal function was demonstrated."

Retrograde pyelogram: "The cystoscope was passed without difficulty and the left ureteric orifice visualised. A catheter was then passed up the ureter. The passage of the catheter was blocked 30 cms from the ureteric orifice. The opaque medium, Telepaque, was then injected and a film taken. This again demonstrated the block and none of the medium penetrated into the kidney."

An operation was then performed.

Answers P. 378.

La Famiglia Giorgi

Without doubt the most popular lunchtime retreat of all Bart's students, Peter's Refreshment Bar needs no gastronomic introduction. Grandfather Giorgi arrived in England a few years before the first World War and in 1925 bought up the restaurant which has since remained a family concern.



Vittorio Giorgi and his wife Lina

However eating at Pete's is more than a sweaty conflict with his seating arrangements, it is walking into one of London's most historic streets . . .

William Cok – Butcher

Cock Lane is first recorded in Osney's cartulary of 1200. The various spellings of the street leave some doubt on the interpretation which should be placed on the word "Cock". Ekland has pointed out that the Osney spelling of 'Cockes' probably distinguishes the lane from such as Chicklane, Ducklane, Gooselane, etc. where it is usual to assume that the relevant fowl was bred. Was the street one of the earliest sites of cockfighting? This is a distinct possibility as the sport was popular with Londoners by this date. But a mention of one of the street's residents in the Mayor's rolls of 1305 indicates that cockfighting was not the only local sport: "Thomas, late vicar and John le Copersmyth were to answer William Cok, butcher, on a charge that they came to his houses in Cokkeslane and entered them and tore away eleven doors and five windows. The defendants pleaded that the plaintiff was presented before the wardmote for harbouring prostitutes . . ."

Although the butcher apparently withdrew the charge later, could he yet have been such a character that the 1543 spelling of "Coklane"

A LOAD OF

was after him? Other writers however have suggested a broader meaning to the word in view of the street's long connection with prostitution.

Legal Streetwalking

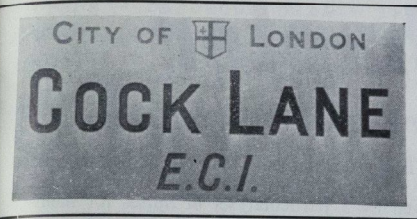
During the thirteenth century the first legal steps were taken over prostitutes. At this stage the measures were directed against their headgear: hoods in particular were to be of a plain variety (rich furs were out although rabbitskin was permissible). In 1351 they were down to hoods of ray only. A more positive approach was taken in 1393 when Richard II had it declared that: "they shall keep themselves to the places thereunto assigned, that is to say the Stews on the other side of the Thames, and Cokkeslane".

Prostitutes identified outside these quarters were punished, the main intention being to clean up the city itself. Their hoods could be confiscated; perhaps those fur-lined capes were creeping back in. Headshaving and the pillories were also tried and as a final insult they were accompanied back to Cokkclane by minstrels who were to sing the unfortunate woman's history at every corner on the way. This heralded return to circulation may of course have provided some useful publicity. In 'Piers Plowman' (Langland 1332-1400) we meet 'Gloutoun' who is on his way to church but gets held up at a pub where he joins a merry crowd including one 'Clarice of Cokkeslane'. A thumbnail sketch?

Not until 1546 in Henry VIII's reign were the brothels of Bankside and Cokkclane successfully closed down.

Too much food

The so-called cherub found on the wall at the east end of Cokkclane commemorates the fact that the fire of London in 1666 halted at this point, sparing Cokkclane. The photograph



would appear to question the still popular belief that the young boy is passing water on the flames. It is true however that the original figure has been replaced and with the old version we also lost the words engraved over his arms and chest: "This boy is in memory put up for the Late Fire of London, occasioned by the sin of gluttony, 1666".

The explanation of this lies in an old sermon in which the preacher, clearly searching for those images which bring it all home, gave a sort of geographical exposé about the cause of the Great Fire. As it started in neither Billingsgate, nor Drury Lane, nor Westminster the sins of blasphemy, lewdness and lying could apparently be discounted. He concluded as follows: "No, my brethren, it was caused by the sin of gluttony for it began at Pudding Lane and ended at Pie Corner" (i.e. the corner where the cherub is placed). At any rate he must have convinced the first sculptor.

A Mouse-like Spirit

For some weeks in 1762 Cokkclane drew the attention of all London. Horace Walpole was among those who went there although he was clearly unimpressed: "The lane was full of mob and the house so full we could not get in, at last they discovered it was the Duke of York . . . when we opened the chamber where were fifty people with no light but one tallow candle, we tumbled over the bed of the child to whom the ghost comes and whom they are murdering in such insufferable heat and stench".

But Horace and his friends heard nothing and he concluded testily: "all the taverns and alehouses in the neighbourhood make fortunes". Perhaps he chose the wrong night because for two months other witnesses had reported hearing the strange noises of a ghost, said to be that of a murdered lady which visited the girl, a certain Miss Parsons, once the part-time bedfellow of the deceased. However when the ghost indicated that it would in due course

make its celebrated tapping on the very coffin of the lady in the nearby church of St. John's, the local vicar decided to lead a fact-finding mission himself. The party included Dr. Johnson and he recorded their silent séance in the girl's room. Unfortunately while they were outside questioning the girl's parents they missed one of the ghost's visits. The doctor hurried in to get a first hand report and noted that the girl declared 'she felt the spirit like a mouse upon her back'. But there were no flies on the vicar's men and after another silent session this time in the church they concluded that the ghost was a hoax; the girl had been put up to it by her parents. Parsons collected two years imprisonment and three sessions in the pillories. But he must still have held the crowd for they refused to pelt him and apparently collected a subscription for him instead.



Hidden Resources? (see "Too much food")

Trade in Flesh

Outside sources claim that the 'Fortune of War', a pub once standing in Cokkclane, was a regular calling-in place for the resurrectionists and so indirectly it may have contributed to the education of our forbears. Positive information about this cannot be found in the hospital records!

Tim Wheeler

Social Chapter

FACING FATHER TIME

The Annual Dinner of the Cricket Club was held on July 29th in the Lord's Tavern. Dr. N. C. Oswald the President of the Club took the chair. Sir James Paterson Ross, Mr. John Howkins and Mr. Keith Vartan, all Vice-Presidents were also there.

After an excellent dinner the health of the club was proposed by the President. Charles Vartan replied for the club. In his speech he mentioned the success of the team this season, which has taken them to the final of the Hospitals' Cup. Nick Griffith then proposed the health of the President and guests. All the vice-presidents attending made most entertaining speeches and congratulated the team, wishing it good fortune in the final. In conclusion the assembly adjourned to the tavern bar, whereupon the staff immediately locked the front doors . . . presumably to forstall any felonious attempt on the wicket.

N.O.

BART'S BABY



Sarah Harrison

AT THE SAVOY WITH THE APRIL 62 SET

Too often it seems that the actual purpose of a belting party is forgotten—it is after all given by a particular set of nurses for themselves and their friends on their qualification. It means, one hopes, more to them than the excuse for others to have a drunken orgy at their expense, as is only too often the case. Happily on this occasion it was not so.

All credit must be given to the organisers. There was no muddle over tables and every place had a named card on it, handwritten in italics—a very personal touch which must have entailed hours of work.

The menu was as impressive when it arrived as it was on paper and the dinner was followed by the cabaret. This was to some a disappointment, but to most a farce, consisting mainly of a very mediocre Folies Bergères-type revue with girls in feathers. The two best spots were a couple of dead-pan acrobats who were excellent, and a folk-singing group of the current ilk. Dancing was to the resident band who were good—nothing too energetic, nothing too nauseating.

The evening ended at 2.30 a.m. and if expressions were anything to go by, everyone had thoroughly enjoyed themselves, and I hope the girls who gave it had as much fun as their partners. It was after all their night.

S.J.P.

EVERGREEN JOKES

This year's Tennis Club Dinner was celebrated on Thursday, 22nd July at The Feathers, Tudor Street; Mr. L. N. Dowie ably took the Chair. The company was reinforced by a generous sprinkling of those invaluable Bart's men who can be relied upon to support any function of this kind, and whose jokes, evergreen, received their customary postprandial airing. Thanks are due to Marcus Setchell for arranging a most enjoyable evening, and a dinner that was excellent value for money.

R.C.N.W.

press - barbecue ball - rave - 0315 14 8 - stop press - barbecue ball - rave - 0315 14 8 - stop press - barbecue ball - rave - 0315 14 8 - stop press - barbecue ball - rave - 0315 14 8 - stop press - barbecue ball - rave - 0315 14 8 sto

The Wine Committee have done it again. Congratulations both to them and their helpers with the decorations and food. A most satisfying feature of the evening was the demonstration that with sufficient money it is possible to make a worthwhile spectacle out of College Hall. Asked to provide a stop press account of the evening within minutes of the conclusion, **Bill Castleden** writes . . .

FOOD: Buffet style chicken/salmon salad, prepared in the College Hall kitchens; attractively presented in a marquee on the lawn.

DRINK: Bars everywhere: highlights—Brewer's drays and *Moët et Chandon* 3/- a glass. This must be what makes the evening: good liquor at subsidised prices and easy to lay hands on.

DECOR AND LIGHTING: Exceptional. The front entrance of College Hall was transformed, delightfully for once; the recreation room dark and interesting; the refectory fish-netted and lighter; outside a still and tempered summer evening blessed with a pale full moon and floodlighting by Dick Atkinson (whose electrical genius seems to assist at most Bart's functions).

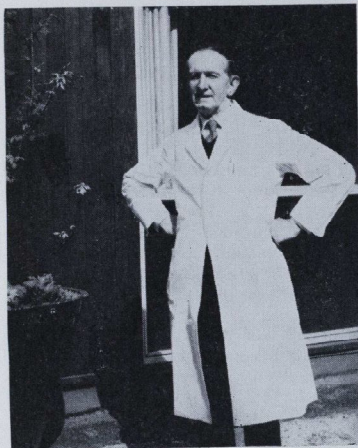
MUSIC: Ideal. The engagement of the Temperance Seven was a masterstroke. They are polished performers indeed, and so diverting that one could just as easily have sat and watched as danced. For beat we were given The Few, that hard hammering Bart's group, popular but cheerfully flat after 2 a.m. Los Tropicanos were fortunately able to carry their oil drums outside after supper, steeling away in their happy manner.

CABARET: An Oxford group, new to the Bart's scene, provided a number of pearls: highlight—the olde English ballad "Come ye fishermen", but with an alarming continuo ". . . and now David will sing . . ."

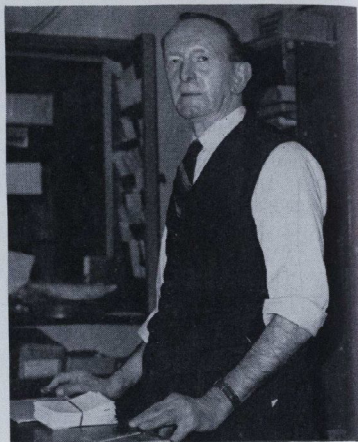
ALSO: Suckling pig times two, on the spit for 15 hours, devoured with distressing speed; cheerful faces; chance reunions; pretty girls . . . anyone who misses the summer ball at Bart's is mad.



aurelius



FRED



It is hard to imagine Bart's without the Fountain, the Henry VIII Gate or the Great Hall; they are its symbols of eternity, the sphinxes which gaze at all that passes by. Frederick George Bailey has something of this same quality of indestructible timelessness, and so it comes as rather a surprise to learn that he has been working in the male students' locker-room for a mere twelve years. In that time he has become such a permanent institution that it is all too easy to take him for granted, and that is why we went to find out a little more about Fred.

His face doesn't give away much about his age, and nor will he. When he tells you that he was working in a brewery at Greenwich in 1910 you begin to tot up the years, but when that impish smile flits across his face, you realise that age has hardly touched him. Beer, even at 1½d. per pint didn't hold his attention for long, and within a few years he forsook the grime of the brewery for a stately home, working as a gentleman's gentleman for a wealthy Captain Crigg.

In 1915, the Inniskillin Dragoons were so pleased with a new recruit to their ranks that within 3 months he was known as Sgt. F. Bailey. Back home from the battlefields of France and Belgium, he went to Woolwich to learn the art of saddlery—he came away with a 1st class certificate, and was soon looking after 300 horses. 1923 was a big year for our young hero, for he left the Army, married his sweetheart and set up his own catering business in Shoreditch. He might still have been there were it not for the cruel hand of fate (coming in the form of a compulsory purchase of his property by the Council in 1953). Fred apprenticed his own son for seven years as a coach-builder so that he won first prize at the Regent Street Polytechnic, and became a sergeant, like his father, within fourteen months of joining the Royal Army Ordnance Corps.

It hardly needs stating that Fred likes students—he doesn't think they change much over the years. They work hard, are happy-go-lucky and do mad things as an outlet. He reckons to know them all within a few months of arriving, but finds this more difficult than in the old days when there were no lockers, but just open racks and you had your coat laid out on the counter as you arrived. There are

few things Fred can't do for you, from sewing on a button to mending a stethoscope or restringing a tennis racquet; there's not much he can't tell you about the hospital and staff, and you can bet that if there's anything you want to buy, Fred will sell it to you!

Away from Bart's, Fred enjoys a quiet sort of life, with his wife in Highbury New Park. He likes a pint or two on the way home with his 'city friends', one from the Rutland Hotel and the other a bank security officer, and then an evening at home with the papers and the tele. He is a keen Millwall supporter (he used to be a goalkeeper himself in his Army days) and enjoys cricket and golf, and of course is the most loyal supporter of all Bart's sports. He loves carpentry and practical jobs, and will spend his holiday decorating his flat—he hasn't been away to his beloved Eastbourne for three years now.

Fred's life is inseparable from his work at Bart's. Such is his devotion to the place that he never wants to retire—"I'd be lost without it sir," he says with real conviction. Let us hope that we shall see his face for many years yet.

A QUESTION OF DRESS . . .

Visitors to Bart's often remark upon the attractiveness of our nurses' uniforms. While we must admit that they may be influenced by the contents, there is no doubt that our nurses' uniforms are less fussy and severe than many other hospitals'. At a recent Royal College of Nursing meeting, a male nurse from Falmouth deplored the fact that many nurses' uniforms were "badly designed, impracticable, and uncomfortable" and he welcomed the day when starched collars, capes, belts, black stockings and safety pins would be abolished. It may well be that the Bart's uniform fulfils the essential prerequisites of a nurse's uniform, namely that it should be comfortable, easily laundered, and neat, without being too provocative; nevertheless one gets the impression that the original inspiration for nurses' uniforms was the nun's habit, which has gradually over the centuries had an inch lopped off here and there. An example of a uniform that is impeccably smart, not too provocative as well as practical, is that of the air hostess. One would have thought that with all the easy-to-wash synthetic fibres of today a uniform that looks a little less sterile and remote from everyday dress could be designed, but no doubt mountains would have to be moved before a Mary Quant was let loose on nurses' uniforms.

. . . AND UNDRRESS

An eminent gynaecologist refused treatment to a lady patient when she declined to undress in front of a class of Medical Students. Miss Marjorie Proops, the *Daily Mirror's* doyen of good sense was provoked to discourse on "*The unsexiest strip of all*". Unlike so many who feel embarrassed by the ordeal, the only emotion that the good Miss Proops feels is fear that the Medical Students will not know the answers to questions put to them by the surgeon.

It must be something of a psychological ordeal to a female patient to be examined by a large number of students, especially the first time, but if the examination is conducted with decorum this can be reduced to a minimum. Patients attending a teaching hospital must be prepared to be taught on; it is worthwhile warning them about this before they attend. Education of the public to dispel the horror of examination is all-important, both in the establishment of a good doctor-patient relationship, and as an aid to early diagnosis.

SURGERY OF THE HAND IN RHEUMATOID ARTHRITIS

by T. E. Jeffreys

Orthopaedic Department, St. Bartholomew's Hospital.

Exaggerated claims for the results of surgery in the rheumatoid hand, or in rheumatoid arthritis in general, must not be made. In the progressive stage of the disease surgery can offer temporary improvement in function, and possibly temporary arrest of progress. One must be very cautious in making this latter claim as the natural history of rheumatoid arthritis is one of remission and relapse. When the arthritis is "burnt out" there are a few salvage procedures which can make the patient more comfortable. Even slight and transient improvement, disappointing to the surgeon, is often hailed by the patient as successful. To the modest orthopaedic surgeon this can be embarrassing.

In this paper a sketchy and incomplete outline is given of the effects of the disease in



Fig. 1.—Hypertrophy of Metacarpophalangeal and Tendon Sheath Synovium.

the hand, and some of the procedures available for dealing with them.

Activity of disease is not a contraindication to surgery. Most patients with rheumatoid arthritis feel better after their operation than they did before. If the patient has been taking steroids, extra cover with prednisolone or hydrocortisone is necessary immediately before, during and after the operation. Wound healing is not adversely affected by steroid intake in therapeutic dosage.

It is important to remember the effect any disability of the arm has on hand function. It is useless to correct any malfunction of the hand if that hand cannot be put into a working position. Often the first thing to do for a rheumatoid hand is to operate on the arm above it. A common deformity is flexion contracture of the wrist, and this cripples the hand. Splinting of the wrist in the position of function during the active stage of the disease may prevent the development of this deformity. If this has not been done, surgical fusion of the wrist in an improved position will produce a dramatic improvement in function of the hand. If both wrists have to be fused it is advisable to fix one in the recommended position of slight extension, but the other in a neutral position or even in slight flexion. This will facilitate toilet of the perineum.

Excision of the lower end of the ulna, or of the head of the radius, will restore rotation to the forearm when this has been lost from disease at wrist or elbow.



Fig. 2.—Metacarpophalangeal Joint erosion.

In the hand itself deformities are produced by destruction of the joints and by imbalance between opposing muscles. This imbalance occurs in the long flexor and extensor muscles and also in the intrinsic muscles. The disease begins, as elsewhere, as a primary synovitis, affecting the synovial joints and also the synovial sheaths of the long tendons. The first presentation of rheumatoid arthritis can be a tenosynovitis at the wrist, and nowadays a compound palmar ganglion is more likely to be rheumatoid than tuberculous. In the joints the synovium hypertrophies, producing the characteristic swelling of the knuckles and fingers. (Fig. 1). The rheumatoid granulation tissue or "pannus" creeps over the joint surfaces, eroding and destroying the underlying articular cartilage, and the bone at the margins of the cartilage. If the disease is unchecked the joint is destroyed. (Fig. 2).

Underneath the flexor and extensor retinacula the swollen synovium compresses the struc-

tures adjacent to it. Symptoms and signs of median nerve compression may appear. The tendons may be compressed or involved directly in the rheumatoid process. They may rupture. Such rupture of a tendon is more common under the extensor retinaculum where another cause may be the attrition of a tendon over a jagged spicule of bone projecting up from the margin of a diseased joint. The rupture is abrupt and painless, the patient suddenly finding himself unable to extend a finger. (Fig. 3).

Similar mechanisms may produce rupture of the middle slip of the extensor expansion over the proximal interphalangeal joint, producing the "boutonniere" deformity of proximal interphalangeal flexion and terminal interphalangeal extension. The terminal slip of the extensor tendon may rupture when a flexion deformity of the finer tip will follow. (Fig. 4). The phenomenon of trigger finger, produced by stenosis of the fibrous flexor sheath at the base of the finger, may precede rupture of the flexor tendon. (The stenosis is relative, it is the tendon which is thickened, not the sheath).

The deformities which follow these tendon ruptures are the result of loss of muscle action and the unopposed pull of their antagonists. Deformity produced by muscle overaction alone is seen when the intrinsic muscles of the hand are involved in the disease process. The



Fig. 3.—Extensor Tendon rupture of little finger.

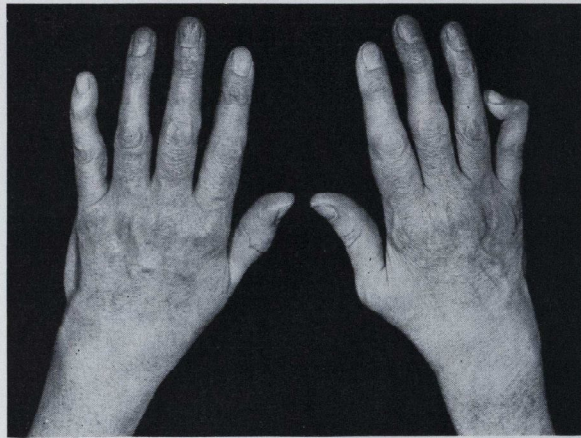


Fig. IV.—Flexion deformity of terminal phalanx.

muscles become wasted and fibrotic. The fibrous contracture which follows pulls the knuckle joints into flexion and the proximal interphalangeal joints into hyperextension. This is known as the swan neck deformity. (Fig. V).

If treated early these deformities can be corrected by repairing the appropriate tendon—either by free grafting or by suturing, or by releasing contracted muscles. If treatment is delayed the affected joints will become stiff in the deformed position owing to adaptive changes in the joint capsule and a dynamic correction will not be possible.

Hypertrophy of metacarpophalangeal joint synovium—quite apart from its destructive effect on the joint itself—is in part responsible for one of the most characteristic deformities of the rheumatoid hand, that of ulnar deviation of the fingers or ulnar drift. (Fig. VI). As the synovium swells the extensor tendons, which here form part of the joint capsule, are displaced to the ulnar side and capsize into the valleys between the knuckles, pulling the fingers into ulnar deviation. This is a facile and highly simplified explanation of how the deformity



Fig. V.—“Swan neck” deformity.

is produced. Other factors responsible include the laxity of the collateral ligaments produced by the joint swelling, the natural tendency of the hand and fingers to deviate medially during gripping, and relative imbalance between extrinsic and intrinsic muscles.

Initially ulnar drift only occurs when making a fist and is easily corrigible, but as joint destruction proceeds the capsized extensor tendons produce first subluxation then palmar dislocation of the fingers. If the process is complicated by extensor tendon rupture and intrinsic contracture, the typical fixed flexion, ulnar deviation deformity of the advanced rheumatoid hand becomes established.

Any attempt to correct ulnar drift must be done early. Late ulnar drift is amenable only to operations on the joints themselves, arthrodesis or replacement arthroplasty, and these are rarely worthwhile procedures. The principles of operation in the early stages are to excise the diseased synovium and to replace the capsized tendons in their normal position.

The thumb can be disabled by mechanisms similar to those responsible for producing deformities of the fingers, but the effects on

hand function as a whole are much more serious. The prehensile function of the human hand is dependent on successful opposition of the thumb, and if the thumb is unstable or fixed in a bad position that prehensile function is lost. The arguments for early operation in the treatment of deformities of the fingers apply here with even greater force.

Rheumatoid deformities develop insidiously and the patient has time to adapt himself or herself. One of the striking features about the rheumatoid hand is how grotesque deformity is compatible with function; not good function—there are many things

that cannot be done and tasks done by the normal single hand require two hands for their performance—but still function. Because of this there has been reluctance among surgeons to operate in the early stages and reluctance on the part of physicians to refer patients for

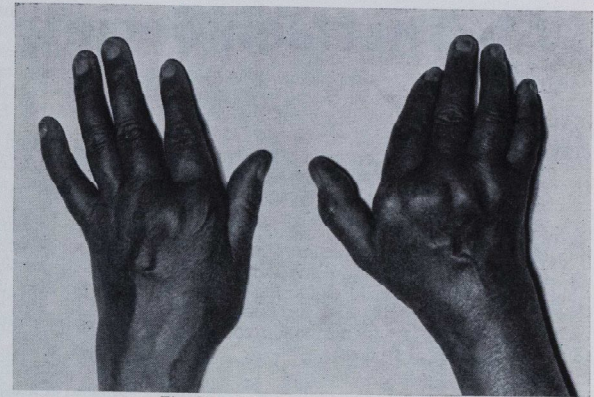


Fig. VI.—Ulnar deviation of fingers.

operation. If good results are to be obtained patients must be seen in consultation between physicians and surgeons. Fortunately at Bart's there are signs that such a combined clinic will become established.

Nurses' Column

July was an exciting month. We awaited with bated breath and quickening hearts the first news from the Paris Fashion Houses. As it came in on the Teleprinter, specially installed in the Journal office for the week, betting increased at Ladbrokes—would skirts go up . . . or down. Whatever Miss Innes may say in the *Daily Mail*, the Paris Couturiers have a very special meaning in the Bart's Linen Rooms—after all wasn't it the 1912 collection that had such influence on our outfits? This year the Hospital has decided to honour the occasion by altering the uniform dress by 8 in. to bring it into line with present day trends.

At Henley, the Boat Club was narrowly beaten—much to the disappointment of three females, who appeared to be the *only* supporters. The Golf and Cricket teams, however, are both through to their respective semi-finals.

With the results of the State Finals hardly cool from the Press, there was a spate of flat-warming parties as people were able to leave the shelter of the Nurses' Home.

At Lancaster Gate the party was excellent—despite no glasses or beer until 10 p.m. However the Punch served its purpose as one “other man” has good cause to know. Another party held at Queensborough Terrace in a very nice spacious flat, was a great success. They also had one to celebrate the State Results—this although smaller was good—enlivened by Di Pullinger being kidnapped by several tough gangsters and driven off at high speed to THE FLAT in Hampstead, where she was forced by eight men to stay the night. Relax—she only lost her shoes.

A Consultant held a very successful luncheon party for his firm, and afterwards he locked his theatre sister in the village stocks.

There is to be a **Bazaar** in aid of the Cancer Research Fund on Wednesday, 29th September, from 3.30-5.30 p.m. in Gloucester Hall. All contributions beforehand (clothes, etc.) would be gratefully welcomed by Anita Durrance or Jill Allen, c/o Nurses' Post Office.

Abernethian Society Meetings

Thursday 20th. May, 1965

The Art of Meditation

SWAMI CHINMAYANANDA

Swami Chinmayananda delivered an interesting lecture on this subject defining meditation as being a process for disciplining one's thoughts. He attempted to define the mind as being a flow of thoughts and suggested many ways in which the art of meditation could be of use to a medical student.

Thursday 27th May, 1965

Women in Medicine

PROFESSOR SIR BRIAN WINDEYER

Sir Brian Windeyer was direct and reasoned unemotionally the position of women in medicine. He said that it was right that women should enter any field but that this should be looked at objectively. In 1947 the entry of women into medical schools was hotly disputed but now they were accepted on terms of equality and participated in all activities. They appeared to be more single-minded to medicine, worked harder and kept up well with the standard of the class. They were more mature than men at the time of entry but by the time of qualifying the men appeared to have caught up. Generally he thought the admittance of women into schools had been for the better.

In Middlesex Hospital Medical school a third of the applicants for the October, 1965 entry were women, out of which only 15% would be accepted. However, because more men failed the 'A' Level Examinations, the percentage of women was more like 16-18%. Very few women completely wasted their training by failing to qualify but after qualification they tended to leave medicine due to pregnancy or marrying non-doctors. There were two categories of women—the grouping being dependent on temperament and opportunity. The first group was enthralled by the profession and wanted to continue in it, while the second wanted to devote their time and effort to their families and gave up medicine for at least a number of years. A Middlesex survey done

by students on past students showed that 50% were in full-time medical employment; 30% in part-time and 20% were not doing any medical work. This suggested an insufficient number of women remaining in medicine for the money spent on their training. To return to medicine was difficult for they had to recapture their interest as well as being able to keep up with medicine. They, thus, tended to get routine jobs. Sir Brian suggested that refresher courses should be provided that were easily accessible—the best probably being a scheme of attachment to staff at a local hospital. There should also be a greater flexibility in employment arrangements for women with children. Sir Brian ended by saying that as it was impossible to interchange men and women in certain jobs, special arrangements should be made for women in medicine.

Thursday 3rd June, 1965.

Medical Insurance

MR. BRIAN YOUNG

Mr. B. Young, the Divisional Superintendent for the South of England for the Medical Sickness Society, began with a brief history of the Society. This was founded in 1884 to insure members of the Medical and Dental professions. The Society is a mutual society, there being no shareholders, and it transacts Life Assurance and non-cancellable sickness and accident Insurance. It takes part in many student activities such as the Brighton walk and printing fixture cards for various clubs, and has two representatives to give advice to students on insurance.

Thursday 24th June, 1965.

Cytological Investigations on Carcinogenesis

DR. G. CANTI, M.B., B.S., M.C. Path.

Dr. Canti gave a most stimulating lecture on this subject with an emphasis on investigations on the cervix. Since the early 1940's carcinoma of the cervix could be diagnosed from vaginal smears using the Papanicolaou staining method. Petersen in Denmark, by following up untreated cases with grossly abnormal cervical

epithelium on the smear, found that 30% would develop invasive growths in nine years. Some workers said that the figure could rise as high as 60%. If women between the ages of 25 and 60 years were screened in this way, carcinoma of the cervix could be virtually eliminated. Dr. Canti suggested that more could be discovered about cancer if the epithelium and its development were studied. The smear picked up superficial and intermediate layers of the epithelium; the abnormal cells showed hyperchromatic and enlarged nuclei with the nuclear/cytoplasmic ratio increased. The cells were not flattened but remained rounded like the parabasal cells and had abnormal mitotic figures. In a section a sharp junction could often be seen between the normal and atypical epithelia, the latter being more vertically orientated rather than stratified. There was a small round cell infiltration below the growth. The carcinoma *in situ* usually started from the squamo-columnar region and extended up through the cervical canal involving the ducts of the glands but leaving the basement membrane intact. The cause of the change from a carcinoma *in situ* to an invasive carcinoma was unknown. The

basement membrane was penetrated at points (microinvasion) and here the staining was paler and the cells more differentiated.

Dr. Canti suggested a hypothesis based on the clonal theory of Macfarlane Burnet. In *in situ* carcinoma the clones could not invade the tissue because of their antigenicity and the host could not reject them because of the basement membrane. However, if there was a transmutation that was not so antigenic to the host it could invade and gain hold in other parts of the body. The round cell infiltration was an indication of antigenic activity. The cells of the two types of carcinoma were different: in carcinoma *in situ* there was a high nuclear/cytoplasmic ratio and the chromatin was fairly evenly distributed. In invasive carcinoma the cells were like normal cells with more cytoplasm but the nuclear chromatin was aggregated in clumps. Workers in Oxford did chromosomal counts on the lesions and found a tremendous scatter in carcinoma-*in-situ* evidence in favour of numbers of different clones; there was less scatter in the invasive growths.

Dr. Canti concluded his most interesting lecture by producing evidence for his hypothesis from other organs.

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CULL



"WELL, ORIGINALLY, I COME WIV THE INTENTION OF READIN' THE METER, BUT I 'IT ME 'EAD ON YER BARBERS POLE AS I COME IN THE DOOR!"



Penguin Reviews



SUBSTITUTING SEX FOR X

Logic and Sexual Morality, by John Wilson.
Penguin Books. 4s. 0d.

Mr. Wilson's book deserves to be read, but it is very hard to give an account of it, or to agree or disagree with what it says. One thing Mr. Wilson does provide, as David Cauter pointed out in his review of the book in the *Sunday Times*, is a very useful distinction which has to be noticed if discussions of sexual morality are to be worth having.

First of all, as Mr. Wilson says, we naturally divide into two parties on sexual questions, the puritan-authoritarian and the liberal-permissive. "It is difficult to speak of sex at all without being listed as a member of one party or the other." (p. 58-9). Now the distinction which must not be covered up by this division into two parties, is the distinction between those who commit the "fallacy of discrimination" and those who do not. Briefly, to commit the fallacy is to discriminate between good and bad uses of x; so that when it comes to teaching how to use x, we must surround x by rules and taboos to ensure its good use, otherwise x will become devalued and meaningless and have mainly bad uses.

If we substitute sex for x in this argument, we shall see that indeed sex is surrounded by rules of how to use it in order to stop, or at least limit, the bad uses of sex. Mr. Wilson's point is: *nobody* in our present society has the right to give us either orders or rules on how to behave sexually. Therefore, when people discriminate between good and bad uses, going on then of course to commend the good uses, we should remember that some people discriminate sexual behaviour and attitudes towards sex in *this* way, others in *that* way, and yet others in other ways.

Mr. Wilson gives an example of the committing of the fallacy on p. 62:

Thus one might be inclined to say: "You can't treat a woman both as a 'real person' and as just something to sleep with."

His reply to this is: of course you can! One can look at people and things in more than one way. He continues:

To claim that it is psychologically undesirable seems simply doctrinaire.

He suggests that some people for reasons of their own personality cannot help being doctrinaire—however, we don't have to listen to them.

In the foregoing I hope I have shown Mr. Wilson's method and also his ideals. Mr. Wilson wants us to improve communication on sexual topics, and to put ourselves in a position to *choose* the morality we live by, rather than just live by the one that we happen to possess. He suggests possibilities that various groups in our society might explore, which, if found successful, might then be adopted by society at large.

Readers who want to get the outlook of this book should read some advice which he gives, hoping it will be helpful, on pp. 260-265. The introduction (pp. 9-15) will also give a good idea of Mr. Wilson's aims and style of argument. If you want *me* to tell *you* whether I recommend this book, the answer is: yes, I do.

David Sladen.

OF THINGS PAST

The Kindly Ones, by Anthony Powell. 3s. 6d.

The strength of this book lies in its descriptions. Beginning in the author's childhood, it deals with his life from four different points in time—between just before the First World War until he joins up in the army at the beginning of the Second.

At once we are plunged into the narrator's childhood life with his family in Aldershot. Living in a rented bungalow, built and furnished to remind the original owner of his life in India,

are his middle-class parents. However, the interest lies not so much in his parents' rather colourless life, as in the intriguing and subtle tensions which build up in the servants' quarters—between Albert, the bucolic and taciturn retainer, and Billson, the highly-strung maid, and Bracey, the soldier-servant who is subject to melancholia. A delicate and precarious balance is kept between these three characters, Bracey making discreet overtures to Billson and suffering from attacks of depression when rebuffed, while Billson herself is engineering tactics, mainly imaginary, to entrap Albert into marriage. The disastrous and dramatic consequences of Albert's engagement to a girl from Bristol form the climax of the first half of the book.

The powerful description of these events leaves one almost embarrassed oneself for Billson in her predicament. Somehow the remainder of the book made much less impact on me. This may be because the atmosphere created is not nearly so vivid, characters remaining somewhat amorphous, perhaps because they have been developed more fully in the preceding five volumes in this sequence, "The Music of Time".

This book is an entertaining insight into life between the two world wars and it gave me much pleasure.

Christopher Watkins.

BIZARRE SOCKS

Flash and Filigree and The Magic Christian, by Terry Southern. 3s 6d.

Whether or not one enjoys a novel depends, of course, as much on oneself as on the novel. To recognize and enjoy satire one must be familiar with its objects. Perhaps for this reason I never quite succeeded in sensing the mood of these books or in enjoying them.

The first and longer, *Flash & Filigree*, concerns a doctor working in a lush private clinic, a madman, some crooks, and a hitherto innocent nurse. Intriguing as this sounds, the characters remained for me quite dead, occasionally ludicrous, seldom funny. If the observation was penetrating or the humour devastatingly perceptive, I missed it.

One's view is jaundiced by one's prejudices about style. I do not like long shapeless sentences which try to do too much—where every word hopes to appear significant and where too many ideas not necessarily closely related are mixed together at random—e.g.:

'So she half rose, leaving the towel gathered in warmth around his feet, and herself to turn away holding two small socks in her hand which she gave a squeeze—not exactly perfumatory, standing bent above the electric heater, alone, but a squeeze too gentle really for the one drop which fell and broke the image that glittered incurvation as held her own twice wrought face in burning image, broken there, in reflection, at the cheek by the sizzling thin-arc of one, so natural, breaking drop.'

To be fair, most of the novel moves faster and less obscurely than this, but such verbal monstrosities are all too common.

The second story, *The Magic Christian*, is less pretentious and much funnier. An eccentric millionaire takes tea with two old aunts, a flirtatious and obese Manhattan dowager and a neurotic pekinese. Between sips we are allowed glimpses of his past pranks, most of which are exceedingly funny. Whether this concoction quite constitutes a novel I am not sure; amusing as the parts are, I do not think any whole emerges.

The author is Terry Southern, "Satirical author of *Dr. Strangelove and Candy*", as the cover designers are asked to emphasize. In spite of this record, my appetite for Terry Southern's novels is satisfied.

John Sutcliff.

AMSTERDAMSE

Love in Amsterdam; Because of the Cats; Gun Before Butter, by Nicolas Freeling. Penguin. 3s. 6d. each.

These three novels herald the arrival of Nicolas Freeling among the shallow waters of detective fiction—waters already overstocked with rather mediocre fish. Piet Van der Valk is the latest character to assume the mantle of Sherlock Holmes. An Inspector of the *Amsterdamse Recherche*, he is a refreshingly realistic sleuth with a pleasant dearth of those exotic gimmicks so beloved by writers of crime fiction. Certainly he is an unorthodox detective, however, and for this reason unpopular with his superiors (it is a curious fact that senior police officers are invariably portrayed as pompous asses and incompetent blunderers in crime fiction).

London-born, educated in France, and with a Dutch wife, Nicolas Freeling writes with cosmopolitan flair. Much of the enjoyment of these books lies in the authenticity of their settings in and around Amsterdam, and in the author's sympathetic study of the Dutch way of life. Freeling has been compared, not inaptly, with Georges Simenon and Friedrich Dürrenmatt. Maigret in fact is a considerably better

detective than Van der Valk, relying less on luck and more on logical deduction; for it is the great failing of these three books that Van der Valk's intuition, early established and in detail, is born out by the facts with a fidelity which tempts our disbelief. It seems a pity that so many crime writers forego the example of Freeman Wills Crofts and invest their hero with the qualities of Superman.

The comparison with Dürrenmatt is the more accurate for Freeling shares the Swiss writer's obsession with motive and his avoidance of a straight whodunit style. Both attempt sincere characterisation; both write with a depth which makes Agatha Christie read like Enid Blyton. There is insight and economy of phrase in Van der Valk's description of bourgeois Brussels:

"It is sometimes tiresome, he thought, to be in a town that proclaims so unashamedly, 'Aren't we rich? You've no idea how nice that is.' There were the usual posters of French gangster films. An elderly classical actor, encrusted in bloodshot ferocity and gritty stubble, surrounded by sub-machine guns, glared at a slut in a torn blouse a step or two below him on a very squalid staircase. Charming."

Love in Amsterdam concerns the death of an ageing tart in Josef Israelskade. The story is told from the viewpoint of the principal suspect (the victim's erstwhile lover) and we are intro-

duced tangentially to Inspector Van der Valk.

Gun Before Butter is an enjoyable tale of double identity and crime passionelle. The murdered man is involved in smuggling enormous quantities of butter across the Dutch-Belgian border, and grows rich on the price differential (so much for the Common Market). Van der Valk is on top form here, but displays a somewhat arbitrary and doubtful sense of justice at the finish. *Because of the Cats* is harder to recommend, being the brutal story of a peculiarly corrupt teenage gang, with too much money, time and freedom. Eminence grise behind this Bloemendaal dolce vita is a nefarious club-owner who fosters the criminal leanings of the young men (The Ravens) so that he can seduce their girls (The Cats). In the ensuing story Ravens and Cats vie with each other for bestiality; the ladies win, I feel, but by a short head.

To sum up, these books are admirable in many ways, not least their unusual context, and Van der Valk certainly knocks Miss Marple into her Crown Derby teacup. But try *Gun Before Butter* for your first taste of Nicolas Freeling.

Robin Williamson.

MEDICAL BOOKS

Cardiology

Resuscitation and Cardiac Pacing, edited by Gavin Shaw, F.R.C.P.; George Smith, F.R.C.S., F.A.C.S.; Thomas J. Thomson, F.R.C.P. Pp. xvi + 256 illustrated. London, Cassell, 1965. Paper back price 30s.

This subject was thoroughly aired at a Conference held in Glasgow in March last year under the auspices of The Glasgow Postgraduate Medical Board. Twenty-seven of the papers given have been collected by the editors to form a pleasing paper-back containing much well-presented, easily accessible information.

The subject has been divided into six sections: Pathology, Aetiology, Management of Cardiac Arrest, Arrhythmias, Heart-Block and Pacing, and a Concluding Session. The papers are short and on the whole very readable. They are refreshingly up to date and of value to those concerned in the Resuscitation Service and Cardiac Pacing. For others, there are worthwhile papers on drowning, biochemistry and arrhythmias. There is a lack of emphasis on the importance of providing adequate ventilation during cardiac resuscitation. It would seem that in theory, as well as practice, this is an aspect of treatment all too often neglected.

The illustrations are excellent and generous and at the end of each paper there is a good selection of relevant references. There is no index.

After one reading the gloss cover of this paper back was cracked and the book took on the appearance of being loose leaf. Thirty shillings is an exorbitant price to pay for a badly bound paper back which will certainly have fallen apart long before the information it contains is outdated.

J.E.S.

Electrocardiograms, A systematic Method of Reading Them, by M. L. Armstrong. Published by John Wright and Sons Ltd. Price 17s. 6d.

This is a short account of electrocardiography of only 63 pages. Unfortunately the explanations are therefore brief and not always either clear or conforming to standard practice, and the illustrative electrocardiograms have not reproduced well. Although the brevity of this book may well appeal to the undergraduate, he would be ill advised to use it as his only guide.

J.S.F.

Microbiology

A Short Textbook of Microbiology. D. C. Turk and I. A. Porter. English Universities Press, 1965. 292 p. Price: 20s. Paperback, 27s. 6d. Boards.

As implied by its name, "Microbiology" is the study of small organisms. While the term "small" lacks any precise definition it is usual to think in

terms of viruses, rickettsia, bacteria, protozoa and even some of the "small" fungi. During the past few years there has been an almost remarkable surge of activity to learn more about two of the groups listed above, namely the viruses and bacteria. Further, they have been used as models to investigate fundamental biological phenomena, such as the biological role of DNA (almost all that we know about DNA in living organisms is really information about bacterial DNA) and the macromolecular organisation which seems to characterise the "living" from the "non-living". To do this kind of work a wide variety of biochemical and biophysical techniques have been used which, from the methodological point of view, have again added to the interest in the field. So great has this interest become, and so exciting to all with enquiring minds, that many symposia and numerous popular articles (viz. Scientific American) have been published. Viruses and bacteria have been used as a basis for the study of genetics (as in the lucid and readable book "The Mechanics of Inheritance" by Stahl) and for the past three years as a starting point for the cytology and histology taught in our own First M.B. course.

"A Short Textbook of Microbiology" is little concerned with the remarkable developments referred to above and their implications, either biological or medical. Its subject matter is exemplified best in the simple statement: "The contributions of the traditional medical microbiologists continue to be the part of the subject of greatest importance and interest to medical students." The arrangement of the book follows the inevitable pattern. In Part I there is a very brief history of transmissible diseases with references to Pasteur, Lister and Koch. Part II consists of three short chapters, the first of which lists the various organisms and describes them in individual paragraphs. The structure and related aspects of viruses occupy eight lines; protozoa, a modest four. Bacterial morphology is given more scope in the second chapter of this section, but even then it is almost a list of characteristics which are not, by themselves, very informative as far as providing an insight into their significance:—"It (the cell wall) is largely composed of a combination of amino-sugars and polypeptides known as mucopeptide or muco-complex, together with other lipid, protein and carbohydrate ingredients and also, in Gram-positive bacteria, polymers of glycerophosphate or ribitol phosphate known as teichoic acids."

Subsequent parts of the book are: "Pathogenesis of Microbial Diseases"; "Micro-organisms of Medical Importance"; "Laboratory Diagnosis of Microbial Diseases"; and "Prevention and Treatment of Microbial Diseases". These will have an obvious appeal to medical students with examinations in mind. Here the concise style of the book with its appropriate and clearly marked sub-headings is at its best. Finally, there is a most useful glossary.

The book has been produced with the need for keeping the cost as low as possible so that the paper is not of high quality. There are no half-tone illustrations and only four mediocre line drawings. The brevity of style, paucity of illustrations and general presentation makes for dull reading. As a crammer it is probably good; but it is destined to produce the feeling that microbiology is a terribly dull subject when, of course, it has become established as one of the most fascinating of all.

D.L.

Medical Microbiology—A Guide to the Laboratory Diagnosis and Control of Infection, edited by Robert Cruickshank, M.D., F.R.C.P., F.R.C.P.E., D.P.H., F.R.S.E. 11th Edition, xi + 1067 pp. Edinburgh: E. & S. Livingstone Ltd. Price 55s.

Once upon a time Mackie and McCartney was a simple laboratory bench book that could be found in almost every bacteriology laboratory, and was bought by, or was given to, most technicians. It has now been taken over by a team from Edinburgh, and its title changed from *A Handbook of Practical Bacteriology* to *Medical Microbiology*. The intention of the author is that it should be a comprehensive textbook catering for the needs of all those concerned with the laboratory diagnosis and control of infections in man.

In catering for a wider audience the book has grown greatly in size. It is divided into five parts. Part 1 deals with general principles, Parts 2 and 3 are about bacterial and virus infections, Part 4 is concerned with applied microbiology, and Part 5 is a method section.

Time will show the value of this new edition. Technicians may regret the passing of the shorter, more concise version, and at the size and price, it can hardly be recommended to medical students, except as a reference book.

R.A.S.

Histology

An Introduction to the Fine Structure of Cells and Tissues, by Porter and Bonneville, Henry Kluption. (loose leaved 34s., cloth bound 56s.).

This work consists of a series of electron micrographs with explanatory text. The illustrations are printed on one side of a sheet of art paper, and the text can be laid opposite to the picture to which it refers. This arrangement makes for the maximum of convenience for the careful reader, but the risk of loss or damage is greater than would be the case with a bound volume. With a total of 32 plates it is obvious that much has been omitted, but though there are large gaps and sometimes the pictures chosen are inferior to some already published it must be stated that this is an excellent work and the price is very reasonable. It can be recommended both to preclinical students and to postgraduates.

F.J.A.

Biochemistry

Quantitative Problems in Biochemistry, 3rd Edition. Edwin A. Dawes. Pp. xv + 317. Edinburgh and London: E. & S. Livingstone Ltd. 1965. Price 35s.

The appearance of a third edition of Professor Dawes' excellent little book only three years after the second edition indicates clearly the increasing appreciation among biochemists of the importance of the quantitative aspects of the subject.

The new edition is not greatly different from its predecessor, but the author has taken the opportunity of correcting a few minor errors and expanding slightly certain chapters. The enlargement of the section dealing with the evaluation of alternative pathways of glucose metabolism by means of ¹⁴C-labelled glucose clarifies some of the difficulties inherent in this problem, and the addition of a section on the continuous culture of micro-organisms will be of value to anyone concerned with this increasingly widely-used technique.

The volume is also brought up to date by the inclusion of problems from recent examination papers, references to recently published works, and the addition of descriptions of such modern developments as the use of hyperchromicity measurements to establish the degree of helical structure in DNA.

Although the book was never intended as a text book of physical biochemistry, it does in fact include admirably clear and concise accounts of the physico-chemical principles involved in quantitative biochemistry, and many people will probably find it of even greater value in this respect than as a source of quantitative examples for instructional purposes.

Subjects covered include molecular weight determinations, acid-base relationships and the electrolytic behaviour of amino acids and proteins, thermodynamics, equilibria, reaction and enzyme kinetics, photometry, manometry, bacterial growth, redox potential, and isotope techniques.

The problems are graded in their difficulty, and although most of them are of Honours Degree standard a considerable proportion should be found within the grasp of the more elementary student.

This is a book which no-one interested in quantitative aspects of biochemistry can afford to be without.

G.E.F.

General Practice

A View of General Practice, by Dr. Peter Bell. Lloyd-Luke Ltd. Price 20s.

In this short and comparatively cheap book Dr. Peter Bell sets down his views on General Practice.

He divides his subject into two. The first concerns administration and ploughs a little heavily through many technical details. He lays down firm and authoritarian standards for running the practice even to details of its finance. I feel this is legitimate and intentionally challenging.

It comes however as a relief to reach the chapter on diagnosis and treatment. This is full of excellent advice on the common problems of General Practice many of which are not considered in Bart's clinical training. There follow useful chapters on Maternity Care and the Doctor in Court. Finally Dr. Bell discusses the future of General Practice. He is clearly not impressed by the current bias of teaching, examinations and house appointments towards hospital medicine.

We learn to worship the specialist, a part-doctor remote from the patient, served by nameless deputies and totally unable to cope with a symptom not related to his own obscure and circumscribed subject. Since 2/3 of students will not specialise, clinical training should be directed away from hospital medicine. Only those who lack some facet of their make-up or who have particular bents should turn aside and follow their chosen speciality.

Not quite fair perhaps but Dr. Bell is an enthusiast for his branch of medicine and he makes it sound very appealing. So it can be and is where practised to standards such as these. It is sad that the medical student seldom discovers this. This book goes some way to encourage him.

C.J.F.L.I.W.

Answer to Diagnostic Problem (Page 361)

Operation Note:

A high oblique left loin incision was made and a very large hydronephrotic kidney was found. On careful examination it was discovered that there was an aberrant renal artery supplying the lower pole of the kidney. This was in intimate relation to the ureter just below the pelvi-ureteric junction. Proximal to this the ureter was attached by a sailshaped adhesion to the surface of the expanded pelvis. The displacement of the ureter by the expanded pelvis was such that the aberrant vessels arched over the ureter resulting in a complete blockage of it.

A nephrectomy was performed and the patient has been symptom free for the fourteen months following the operation.

Case Discussion:

It was thought that the pathological process going on in her left kidney could have been responsible for her long history of epigastric discomfort. The increased frequency of the vomiting and its eventual projectile nature could have been due to displacement of the stomach and proximal small intestine or possibly reflex vomiting resulting from torsion of the renal pedicle.

The episode six weeks before admission that sounded so typical of a myocardial infarction was one of the most puzzling aspects of the case. There was no E.C.G. evidence to support a diagnosis of angina pectoris but this of course in no way rules it out: an exercise E.C.G. was not done. The fact that she has had no recurrence of these symptoms might suggest that there was an alternative non-cardiac explanation. In some patients pain impulses from the heart may travel via the vagus and phrenic nerves. Presumably this is the pathway for biliary pseudo-angina. In this patient abdominal distension and pressure on the diaphragm by the very large left kidney could have produced this pseudo-angina picture.

(I would like to thank Mr. D. F. Ellison Nash for kindly permitting me to publish this case and for his comments on it).



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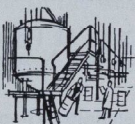
This is the idea that started the plan of the Hormone house that Organon built.



This is the researcher who had the ideas that started the plan of the house that Organon built.



This is the rat that was there at the start, as well as the cows, the sows and rabbits that enabled the researchers to probe the secrets of the hormones which built the house of Organon.



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SPORTS NEWS

We congratulate Charles Evans (Royal Canoe Club) on his fine achievement in winning the Senior Kayak Singles in the Sella River International Long-Distance Canoe Race in Spain on Saturday, 7th August.

TENNIS CLUB

Report

June 20th-July 28th.

Generally speaking the weather has been slightly better for Tennis for the last month. Consequently we have played six matches with four cancelled.

1st VI.

Saturday, 26th June v. St. Georges's Hospital W 7-2.

Last year's captain, P. Mitchenere, playing in his first match of the season combined well with M. Setchell as 1st pair to win all three rubbers without dropping a set.

Both 2nd and 3rd couples won 2 rubbers apiece, only losing to the George's 1st pair.

Team: M. Fryer, P. Mitchenere, M. Setchell, C. Garrard, N. Ireland, R. Farrow.

Wednesday, 30th June, v. U.C.H. W 6½-2½.

Although a somewhat windy day the U.C.H. courts were in excellent condition resulting in a match of high standards.

A. D. Edelsten returned to the side and playing with M. Setchell as 1st pair won 2 and halved the other rubber.

Again both 2nd and 3rd couples won two rubbers each losing to the opposition 1st pair.

Team: A. D. Edelsten (Capt.), M. Fryer, M. Setchell, G. Garrard, N. Ireland, R. Farrow.

Wednesday, 7th July, v. Guy's Hospital. Cup Match. Semi-final.

As Guy's had previously beaten us this season in a friendly game we were very keen to improve upon last time's performance. Perhaps this led to our down-fall, as for Cup-matches particularly, a cool head is vital.

A. D. Edelsten and M. Fryer playing 1st pair, scored our first win by beating the Guy's 3rd couple. Even this game was extremely close

indicating the opposition's strength was very evenly distributed. Our other two couples, however, both lost that opening rubber.

In the next round, our 2nd couple of P. Mitchenere and M. Setchell excelled to beat the Guy's 2nd pair in three sets. Unfortunately, our other two pairs lost, giving Guy's a 4-2 lead at tea.

Due to a storm soon after, we were unable to finish the match and had to return the following evening to play the final round. Whether it was this break or whether it was the psychological effect of losing 2-4 it is difficult to judge, but all three couples played well below their best and the final score was 7-2 in favour of Guy's.

This result emphasised more than anything that three strong couples are essential to win Cup matches, rather than couples of varying standard.

Team: A. D. Edelsten (Capt.), M. Fryer, P. Mitchenere, M. Setchell, G. Garrard, N. Ireland.

Saturday, 17th July, v. Westminster Hospital. W 6-3.

On one of the few ideal tennis weather afternoons of the season, with a somewhat weakened side we scored a comfortable victory over Westminster Hospital.

The 1st couple won all three rubbers, the 2nd couple two and the 3rd couple one. M. Nightingale playing in the 3rd couple played his first game for the 1st team this season.

Team: M. Fryer, M. Setchell, G. Garrard, N. Ireland, R. Farrow, M. Nightingale.

Wednesday, 28th July, v. St. George's Hospital. W 6-3.

This was a return fixture and as we had won the previous match rather easily we introduced

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Dr. Philip H. Addison

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A. H. R. Rowe,
B.D.S., F.D.S.

two 2nd team players to the side, namely J. Wenger and M. Spencer. These two playing 3rd couple won the rubber narrowly losing the other two.

Our 1st pair won all three and the 2nd pair two rubbers.

Team: M. Fryer, M. Setchell, G. Garrard, R. Farrow, J. Wenger, M. Spencer.

2nd VI.

July 7th v. Westminster Hospital. W 7-2.

The 2nd team continued its unbeaten record with a convincing 7-2 win, even though the opposition had two of the 1st team playing.

Team: M. Nightingale (Capt.), R. Farrow, J. Winger, C. Roche-Bery, M. Spencer, S. Heyworth. M.E.F.

CRICKET CLUB

Inter Hospitals Cup—Semi Final v. Charing Cross at Chislehurst on 29th June.

On an overcast day Charing Cross won the toss and elected to bat. P. Savage however proved too fast for all except their captain Brown. He removed their other opening bat in his first over, followed by the number 3 a few overs later.

Once Harrison had Brown caught, the Cross innings collapsed to the spin of Griffiths and speed of Savage. They were eventually all out for 93 at lunch. P. Savage finished with the figures of 5-20, another fine bowling performance.

Bart's Bowling:—

P. Savage	12 : 5 : 20 : 5
C. Vartan	9 : 1 : 31 : 1
N. Griffiths	11 : 4 : 13 : 3
J. Harrison	9 : 5 : 16 : 1

There was some concern about the fast bowling of P. Brown, but this was soon removed by Thomas and Higgs. However the former was out when the score was 20 chasing a ball outside the off stump. Hopkins and Higgs then pushed the score along rapidly until Hopkins was out at 73. Higgs soon followed after making a hard hitting 47. Two more wickets then fell, before the winning run was hit, leaving Bart's the winners by five wickets and through to the final for the first time for seven years.

Bart's Innings:—

R. Higgs l.b.w. Gooder	47
S. Thomas ct. Ellis b. Browne	14
G. Hopkins b. Gooder	15
N. Griffiths ct. and b. Gooder	6
R. Hand b. Addams	0
D. Delaney not out	4
R. Wood not out	8
Extras	0

C. Vartan, J. Harrison, D. Berstock, P. Savage, did not bat. Total 94

Team: C. Vartan (Capt.), R. Higgs, S. Thomas, D. Delaney, J. Harrison, R. Wood, P. Savage, G. Hopkins, D. Berstock, R. Hand, N. Griffiths.

Saturday, June 26th. v. Jesters

Barts batted first against an unknown Jesters side. Soon however we were in trouble. Fine swing bowling by the Jesters opening bowler sent the first five batsmen back to the pavilion for 23 runs.

Then R. Wood with some lusty hitting shared in two partnerships with Vartan and Savage, until he was eventually out for 49. This enabling Bart's to reach the rather dismal total of 108.

When Jesters batted they scored 25 in the first hour, and from then on never looked like getting the runs. Their batsmen never used their strokes and they were eventually all out for 74. N. Griffiths aided by good fielding finished with 5-22 and P. Savage 3-16.

Results: Bart's 108 (R. Wood 49). Jesters 74 (N. Griffiths 5-22, P. Savage 3-16, D. Husband 2-14).

Team: C. Vartan, G. Major, R. Higgs, D. Husband, R. Wood, R. Hand, T. Bates, P. Savage, W. Goss, P. Raine, N. Griffiths.

Thursday, July 1st. v. Dartford

Bart's arrived at Dartford with a number of hangovers and C. Vartan's first over was unbelievable, with four balls clearing the batsmen's head. However, when Bart's had settled down, they bowled accurately on a perfect batting wicket, but little success was gained before lunch when Dartford had made 78 for one wicket.

After lunch, aided by a fast outfield, Dartford progressed rapidly and with some poor fielding were able to declare at 247 for the loss of 5 wickets, these being shared by Harrison and Husband.

In the period before tea Thomas and Offen gave us a good start against some steady bowling. They continued after tea at a run a minute, before Offen was out when the score had reached 78. Griffiths then joined Thomas and 60 runs came in the next half hour before Griffiths was out at 144. Thomas and Walker

maintained the scoring rate until both were out with the score in the 160's, Thomas making an excellent 83.

We now slowed down and the return of the fast bowler kept the over rate down also. Eventually we needed 40 in the last 15 minutes. However after Vartan had hit 14 in one over he was out going for the runs. Soon he was followed by our last hope D. Husband. We finished 13 runs short. Without any doubt the most enjoyable game of the season.

Result: Dartford 247-5. (J. Harrison 3-42, D. Husband 2-60). Bart's 233-8. (S. Thomas 83, D. Husband 36, N. Griffiths 33, N. Offen 29, C. Vartan 24).

Team: C. Vartan, N. Offen, J. Harrison, S. Thomas, H. Walker, D. Husband, P. Savage, T. Bucknell, D. Pope, R. Brown, N. Griffiths.

Sunday, July 4th. v. Bart's Past

Bart's Present 143. (D. Berstock 66 n.o., C. Vartan 22).

Bart's Past 118. (C. Jumper 35, Delaney 29, Thomas 25, P. Savage 3-55, C. Vartan 3-40).

Team: C. Vartan, J. Gately, R. Higgs, J. Harrison, P. Savage, D. Husband, G. Hopkins, R. Wood, R. Hand, D. Berstock, N. Griffiths.

Saturday, July 10th. v. Incogniti

Incogniti batted first and from the beginning Bart's were unable to hold their catches. Consequently we let Incogniti off the hook and they went into lunch with only one wicket down.

After lunch P. Savage excelled himself and with better Bart's fielding kept the score down. In turn wickets began to fall, all to Savage. Eventually they declared at 151-7, P. Savage taking 7-36.

Even this modest total proved too much for us and our batting crumbled. Only Higgs who scored an aggressive 32 played in anything like his real form. However, despite this we could have saved the game but there were some who believed we were capable of scoring 50 in 10 minutes.

Result: Incogniti 151-7 dec. (P. Savage 7-36). Bart's 106 (R. Higgs 32).

Team: C. Vartan, R. Higgs, N. Offen, J. Gately, S. Thompson, J. Harrison, P. Savage, T. Bates, P. Husband, G. Hopkins, N. Griffiths.

Saturday, July 17th. v. Nomads

Nomads 105 (D. Delaney 5-13, J. Harrison 2-9, D. Husband 2-12). Bart's 106-3 (R. Higgs 28, S. Thomas 39, J. Gately 25).

Team: J. Gately, R. Higgs, J. Harrison, S. Thomas, D. Delaney, H. Wacker, D. Pope, P. Bradley Watson, P. Browne, D. Husband, N. Griffiths.

N.V.G.

ATHLETICS CLUB**United Hospital Championships**

—Heats Wednesday, 30th June

—Finals Saturday, 3rd July.

After the conclusion of the heats on the Wednesday, Bart's had qualifiers in every track event but had some gaps in the field events.

The finals were held in overcast conditions on a hard track at Motspur Park. Our sole champion and indeed perhaps the best race of the afternoon came in the 880 yards. Chris Sutton took the competitors to the bell in 56 secs. and tactically withdrew all the fire from the opposition allowing John Coltart to power past on the back straight and romp home to win in 1 min. 55.6 secs. This time is 0.8 secs. outside the U.H. record, beats the Bart's record set up by Arthur Wint (Olympic 400 metre gold medalist and 800 metre silver medalist) on Sports Day 1949 and also beats his own county record. Bart's have always predominated in the 880 yards; G. A. Beck held the record (set up in 1936) and he in turn broke that set up by Mr. H. B. Stallard who won this event on six occasions.

Keith Rawlinson came second in the javelin for the second successive year throwing with a hand traumatised in the pole vault. He also gained sixth place in the high jump.

Robert Thompson showed great endurance in the long distance events being placed second in the steeple chase, third in the one mile and three miles. Don Tunstall-Pedoe came second

SAILING CLUB

The month of July has seen some activity in team-racing. The First team has progressed to the final of the Inter-Hospitals team racing trophy, while, unfortunately, the second team were knocked out in the second round.

The first team accounted for St. George's 'B' team in the second round by the good margin of 45½ points to 33. In the first race we came 1st, 2nd., and 4th., giving us a lead of 23½ to 16 points. In the Second race we came 1st., 3rd., and 4th., giving us the winning margin.

Team: G. Doggett, Miss A. Yendell, D. Gorrod, M. Freeth, C. Grefton, R. Markham.

In the Semi-final, with a slightly weakened team, due to the preclinical vacation, the Royal Free Hospital were beaten by 43½ points to 34, with Ann Yendell helming well to win both races. In the first race we came 1st., 3rd., and 5th., giving us a 21½ to 17 points advant-

in the mile, an event he has won on two previous occasions.

Brian Scott hurdled brilliantly gaining second place in the 440 yards hurdles and fourth in the 120 yards hurdles.

Other point scorers:

100 yards: M. Freeth 6th; 220 yards: M. Freeth 5th; 440 yards: C. Sutton 5th, J. Coltart 6th; 880 yards: C. Sutton 6th; 3 miles: R. Sanders 6th; Long Jump: D. Jefferson 6th; Triple Jump: D. Goodall 6th; Hammer: R. Jolly 3rd; Discus: P. Fairclough 6th; Javelin: P. Fairclough 6th; 4 x 110 relay: 4th; Medley relay: 4th.

Final position 3rd out of 12 competing hospitals.

Bart's have thus retained their position of last year. We hope for some improvement in the field events next year and to consolidate our strength on the track. This meeting brings to a close the athletic career of Dave Goodall who first as secretary and then as captain has rendered great services to the club always sprinting and jumping to a high standard.

City Charity Athletic Meeting—Monday 19th July and Wednesday 21st July.

Brian Scott, Keith Rawlinson, Robert Thompson and John Coltart represented the United Hospitals in this meeting which included many international athletes. They have also been chosen for future matches against Sandhurst, Brighton and Welwyn Garden City, and for the proposed tour to Sweden in September.

age. In the Second race we came 1st., 2nd., and 5th., giving us the winning margin.

Team: Miss A. Yendell, D. Gorrod, O. Thomas, M. Freeth, Miss P. Woods, D. Ratsey.

The Second team had a walk-over against St. Mary's, who were unable to field a team. Against the London Hospital we unfortunately lost by 34½ to 28 points. In the First race we came 2nd., 4th., and 5th., giving the London the lead by 19½ to 19 points. In the second race, the wind died completely, and only one boat finished; four boats, two London and two Bart's paddled home from the far side of the Welsh Harp, the other Bart's boat having retired earlier due to a collision. This gave the London a win.

Team: C. Clarke, M. Freeth, M. Brueton, Miss V. Dent, Miss P. Woods, D. Ratsey.

The final will be held later, either in September or October, against either the London or St. Thomas's Hospital.

BOAT CLUB

It was decided after the Bumps to train a light four for Henley consisting of Garson, Crowther, Ayers and Gilchrist. During the first week under the careful eye of J. Currie, some essential points of technique were unified and we found we could paddle well at 27/28. On Whit Monday we competed in the Senior coxed fours at **Evesham Regatta**. Venturing to the West country for the first time was a delightful success. Our thanks must go to Mrs. Gilchrist for her kind hospitality. We had to borrow a boat and in a quick practice in the morning we soon took in two inches of water. Somewhat dismayed, we borrowed a cox from Gloucester R.C. and set off to row against **R.A.F. Wittering** in the Vale of Evesham trophy. Concentrating more on the buoyancy of the boat than the race we were beaten soundly. Some arguments ensued and when we rowed against **Star Club** in the Market Gardeners Plate we were a different crew. We had a good start and **beat them easily by 2½ lengths**. An hour later we raced **Watton R.C.** stroked by Goringe. We won this race again **with little difficulty**. This was sweet revenge for the four pints of Pimms he won from us at Henley the previous year. In the final we were **beaten by St. Neots** who pulled away to a one length lead in the last minute.

On June 12th, we rowed at **Reading Regatta** rather less well than the previous week and **were beaten** by **Thames R.C.** from the word go. It was after this event that we altered the crew to give it the Italian look. Crowther was moved to stroke, Ayers to bow and Gilchrist and Garson to 3 and 2 on bow side.

This seemed to pay off and although we lost to **Kingston R.C.** in the Town IV's at **Marlow**, the boat was moving faster. This was shown by the fact that we had led Kingston for most of the course but were beaten from a lack of finishing power.

With this indicator to our fitness we moved up to **Henley** with the intention of having three outings a day to improve our fitness. This we did with the help of Dr. Bailey and G. Hodgson who coached us with much vigour. We covered a lot of mileage in the first week in which there were some fierce headwinds. We improved vastly during this period and

soon were putting in some fast times. Amongst others we beat **Mortlake Anglian** to the Barrier in 2.22 into a terrible wind. On the Sunday before the Regatta we relaxed in the hospitality of Mr. Howkins to whom we offer our thanks.

On the Tuesday the wind had turned through 180° and the scene was set for very fast racing. In the light of the International competition this year and the extremely fast times our effort must seem small, but nevertheless it was very creditable.

We drew **Jesus College Cambridge**, whose average weight was 13st. 9lb. to our 11st. 10lb. However, we led them off the start at 11, 21, 39, and gained a canvas lead by the first signal. At the barrier striking 35 we led by ¾-length. We increased this to one length at **Fawley in 3.34**. As we passed **Remenham Club** our lead was reduced to ¾-length and Jesus put in their expected challenge. Try as we did we were unable to hold them and although we came back a little, they beat us squarely in **7.28**, which was a fast time for the day. It beat St. Thomas's time by some quarter of a minute. It is true to note that the respect for Bart's crews grows year by year and with heavier material we might well succeed.

The **Novice Eight** having won their oars at the Bumps competed at Putney Town without success. The **Junior IV** were beaten in their first heat by the eventual winners, the distance being only a **canvas**. They were disqualified at **Horsferry** for being late at the start. D. Bell reached the finals of the Maiden sculls at the Tyneside Regatta.

In summary this has been a successful season with some narrow misses. To our credit we have the U.H. pairs, the University of London Roderick-Hill trophy and share the University pairs with U.C. We narrowly missed the U.H. Senior IV's to St. Thomas's after a re-row in the final and also the Market Gardener's plate at Evesham. We remain third in the Bumps but gained considerable success with the 3rd and 4th eights. Our performance at Henley was creditable putting up a faster time than St. Thomas's and U.C.

Our thanks must go to C. Hudson, J. Currie, P. Brass, G. Hodgson, Dr. Bailey and our other loyal coaches for their hard work and energy.

A.B.A.

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GOLF CLUB

Wednesday, June 23rd. v. St. George's at West Middlesex.

Unfortunately for this match we only managed to field a team of four after some uncertainty of our opponents numbers and therefore our 4th player R. Begent played two men, one of whom he beat and the other he lost to. There were two features to this match, the miserable weather and S. Thomas's fine win on the 18th green by one hole to give us victory by 3 games to 2.

Team: R. Grieve, M. Bowen, S. Thomas, R. Begent.

Wednesday, July 7th. v. St. Thomas's at Royal Mid-Surrey.

Having already beaten St. Thomas's by a convincing margin earlier in the season we had high hopes of repeating the victory on a day which was perfect for scoring. However, an unfamiliar course and poor play led to our downfall, though wins by Grieve and Begent made the final result of a win to St. Thomas's by 3 games to 2, much closer than it was. This was the first match that we had lost against another hospital this season.

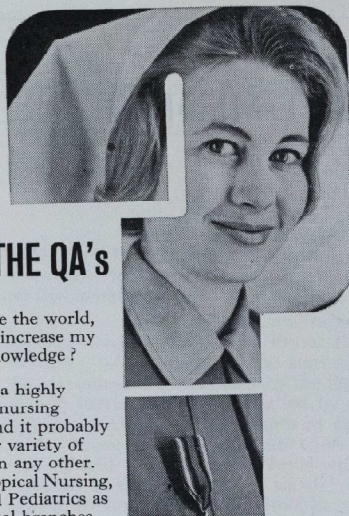
Team: M. Bowen, R. Atkinson, C. Booth, D. Grieve, R. Begent.

Friday, July 16th. v. Middlesex Hospital at Chislehurst (**Semi-final Cup Match**).

Having been very narrowly defeated by Middlesex in the same round of the cup last year we were particularly anxious to avenge that defeat and so earn ourselves a place in the finals. Again we had much difficulty in deciding who to play in the side but the result proves that we produced a competent and well balanced side. On a beautiful evening when conditions were little short of perfect Bowen drove off against Hickman in the top match. After winning four of the first five holes with a very steady start he maintained this lead to win 3/2. Booth and Begent both played very well, the former to win 6/4 and the latter 4/3. Atkinson lost narrowly while Sadler was outplayed by a very good opponent. Hence we won 3 games to 2. This was a very creditable result and it is hoped that the team will repeat this form in the final.

Team: M. Bowen, R. Atkinson, C. Booth, J. Sadler, R. Begent.

M.M.B.



WHAT'S DIFFERENT ABOUT THE QA'S

Q What does Army nursing offer me which other positions don't?

A Briefly, an unusual variety of experience, a chance to get round the world and, if you're a young woman with the necessary qualifications, the opportunity of an immediate commission.

Q What are the necessary qualifications for a commission in QARANC?

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A Most Q.A.'s spend some time at an overseas station during their service. There are Army hospitals staffed by Q.A.'s for instance in Hong Kong, Singapore, Cyprus, and Germany to mention just a few.

Q I'd like to see the world, but would I increase my professional knowledge?

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Q Pay and conditions?

A A Q.A.'s pay is good, and so are her allowances. Holidays are generous with full travel facilities, and there is a special cumulative tax-free gratuity which is paid to you on leaving and specialists get specialist pay of up to 6s. per day... in fact, there are a good many arguments for wearing the uniform of a Q.A., and one of them is the smart distinctive uniform itself. If you are an S.R.N. and would like to know more about nursing as an officer in the Q.A.'s (Queen Alexandra's Royal Army Nursing Corps), write to:
*Matron-in-Chief
QARANC, Department
AMD4, (IQ/Q74)
Lansdowne House,
Berkeley Square,
London, W.1.*

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ὁ βίος βραχύς ἢ δὲ τέχνη μακρῆ

"I don't know, Ma'am, why they make all this fuss about education." Lord Melbourne is reputed to have said to his Sovereign; and certainly the birth of a new Royal Commission on Medical Education, as announced by the Prime Minister in July, can be guaranteed to unloose a further deluge of words on this contentious topic. The Chairman of the Commission, Lord Todd, and his eminent colleagues are likely to receive a range of contrary opinions on the best methods of selecting, teaching and examining medical students. Of the many comments already issued on the subject, few can be as firesomely provocative as those recently published in *A New Look at Medical Education* by Professor John Anderson and Dr. F. J. Roberts. Arguing that genius is akin to madness ("psychopathology") they decry the reluctance of modern selection boards to give places to students who are known to "have had recognisable psychotic episodes." Indeed the principles underlying all current methods of selection displease them so greatly that they recommend the names of all those with the minimum intellectual qualification be placed in a hat, and the lucky few withdrawn at random. Nothing escapes their withering condemnation; the B.M.A., the teachers (notably the consultants), the preclinical and the clinical courses, all are consumed wholesale.

The arguments of the more moderate critics of the status quo gain validity by contrast. Writing this month in the *Journal*, Sir James Paterson Ross emphasizes the need to make medical education a continuous and integrated process from school to qualification and beyond. He stresses the shortcomings of the present rigid separation of the preclinical and clinical courses. At both Charterhouse and Cambridge the only patient the preclinical student is likely to see is the occasional neurology case. It is all too easy to lose one's orientation at this stage of the course. In contrast the first clinical year may well prove to be the most fascinating of the entire course, with the introduction of social responsibility and the chance to put scientific knowledge into useful practice at last.

The student from Charterhouse arrives at the Hospital after eighteen months (shortly to become two years) of intense and rather narrow learning—a course which in the words of Dr. Hunter, Dean of St. George's, has "for many . . . a rather breathless character culminating in the formidable obstacle of the 2nd M.B." The Cambridge Natural Sciences Tripos (shortly to become a degree in "Medical Sciences") offers a three-year course of wider scope and greater penetration. It includes pathology and, in the optional Part II, baptism into the mysteries of research. Here lies the encouragement to emulate Francesco Gennari of Parma, who discovered his stria in the occipital cortex when still a medical student; while Henry Gray, who was elected a Fellow of the Royal Society at the age of 25, might today still be a junior houseman. For the new medical school at Nottingham there are plans afoot to introduce a two-year clinical course followed by two compulsory preregistration years. If the appointment of the Royal Commission indicates the Government's intention to confirm its electoral pledge to start other new medical schools, it should be fascinating and instructive to observe the success of any further innovations in medical education.

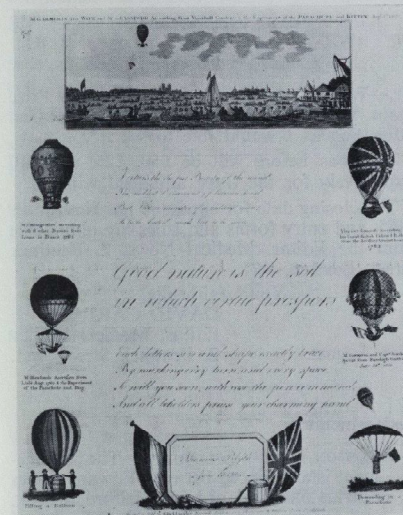
At the risk of irrelevance we conclude with a parochial appeal for the re-introduction of Medical and Surgical Consultations, sessions at which the consultant staff foregathered to discuss cases of particular interest, in order of seniority and in the presence of the students. Such a concatenation, perhaps even conflict, of expert opinion would be an illuminating education. Alternatively we would plead for regular Clinico-Pathological Conferences and the chance for students to correlate pathology and clinical medicine in greater comfort than the post-mortem room. For to revert to Anderson and Roberts, the isolation of pathology as an independent discipline "again emphasizes the bias towards death rather than health in our present training." This is perhaps their most fascinating non sequitur.

* Life is short but there is much to learn—inscribed upon the arch which lay between the square and the old medical school at Bart's.

LETTERS TO THE EDITOR

THOSE MAGNIFICENT MEN

Sir,—I read with much interest the article on Ballooning in the August *Journal* as I have hanging on my study wall a framed coloured lithograph (see photo) of M. Garnerin, his wife, and Mr. Glassford ascending in a balloon from Vauxhall Gardens on 3rd August, 1802, while a kitten descends in a parachute nearby. At the sides are six views of other balloons made in ascents, including those of Montgolfier (Lyons, 1784), Blanchard (Lisle, 1785) and Lunardi (London, 1785) who made the first flight in England in appropriately patriotic colours.



In the central part there is a space intended for children to show their skill in decorative writing. In this case it was very neatly completed by my great-grandfather Thomas Blyth in 1804. Inscribed above the maxim "Good nature is the soil in which virtue prospers" are the lines:

*Virtue's the chiefest Beauty of the mind,
The noblest Ornament of human kind;
But Vice, a monster of so hideous mien,
As to be hated needs but to be seen.*

While underneath is inscribed:

*Each letter's size and shape exactly trace,
By marking ev'ry turn, and every space;
So will you soon, with ease the pen command,
And all beholders praise your charming hand.*
I wondered if you might think the photo of sufficient interest for reproduction in your *Journal* as a sequel to the August edition.

Yours faithfully,
C. O. S. BLYTH BROOKE,
24, Connaught Avenue,
26th August. Loughton, Essex.

SAVED BY HER SEX

Sir,—You may be interested to learn that on the Feast of St. Bartholomew, 1965, there was born in St. Bartholomew's Hospital a daughter to a St. Bartholomew's Hospital doctor, Elisabeth Abrahams, herself the daughter of a former St. Bartholomew's Hospital house physician, namely myself! The baby's aunt, my fourth daughter, was two days later offered a place as a medical student at Bart's, completing the family's Bart's week. Perhaps it was as well that the baby was not a boy, or the names Rahere Bartholomew would have seemed irresistible.

Yours sincerely,
ALFRED LANGFORD,
5, St. John Street,
Hereford.
25th August.

TASMANIAN INGENUITY TAXED

Sir,—Dr. Thomson's letter from Tasmania in your September issue calls surely for something resplendent as should befit a Bart's man, and not for a gaudy mock-up for the cervical decoration of evening dress as you, Sir, suggest in your comment.

Those of us in Pre-clinical years who were "guests" of the University of Cambridge during the early months of the Hitler war at Queen's College will recall upon arrival, the issue by the then Sub-Dean, the late Professor F. L. Hopwood, of a small, but neat badge of the Bart's crest to wear in the jacket lapel button-hole (largely for the benefit of the Proctors and Bulldogs, I gather).

May I suggest to Dr. Thomson that such an "insignia" be attached by means of an appropriate clasp to a suitable place on the left-hand side of the jacket, for instance, between the buttons (or elsewhere if this space is already occupied!). A further suggestion for those who enjoy "shooting the cuffs" is the wearing of very presentable cuff-links enamelled with the Bart's crest which are readily available in London. I wear such cuff-links, and certainly they have provoked admiration if not jealousy from other of one's colleagues, and often are responsible for the inevitable question being asked. And what an opportunity to sing the praises of one's Alma Mater.

Perhaps there is an ingenious jeweller in Hobart who is able to produce dress-shirt studs with miniature Bart's crests incorporated. I think any alteration to the actual Robes would meet with vociferous disfavour from the Academic Authority whether University or Royal College.

Yours faithfully,
RAYMOND CALDERWOOD,
Glencoe,
Sutton Lane,
Brotherton, Knottingley,
Yorks.

3rd September.

PSEUDOPODIAL PROCESSION

Sir,—I read with considerable interest the letter by W. M. Thomson of Hobart, Tasmania, on Academic Dress at Bart's. I feel the two Bart's ties are really quite distinctive. Now academic dress, strictly speaking, infers gowns and hoods. I recall mutilating this topic in the Journal in 1937, which year saw the opening by the late Queen Mary of the King George V Medical Block of wards. On this august occasion there was seen a most magnificent display of hoods and gowns of various universities and colleges worn by the honoraries, and others connected with the Hospital.

There is a tendency to forget that all medical schools are units of London University, which institution I recall was defined by Dr. T. W. Shore, one-time Dean and Lecturer on Biology at Bart's, as "a mass of undifferentiated protoplasm pushing out its pseudopodia to engulf the metropolis." I feel there is much to be said for lecturers to wear gowns at ordinary routine lectures. The hallowed and traditional white ward coat could

be reserved specially for lecturers delivering a "Clinical Lecture" illustrated by cases from the wards.

I consider it would be very fitting for an annual Hospital service to be held in St. Bartholomew-the-Great church, where our founder lies buried, and where I officiate from time to time as a licensed Lay Reader in London diocese. This might well be held on the morning of View Day, and an academic procession could go from the Hospital to the church. My good friend the Rector, Prebendary Wallbank, would be happy to arrange such a service.

Yours sincerely,
J. B. GURNEY SMITH,
Royal Earlswood Hospital,
Redhill,
Surrey.

3rd. September.

STUDENT'S ESSAY PRIZE

Sir,—We are running our Student's Essay Prize again this year, the subject being "Medical Education as I would like to see it".

Prizes as before will be £50, £25, and £10 respectively for the three adjudged winners.

The closing date for entries is 1st. November, 1965, and entry forms and rules are obtainable from the Editor, Medical News, 2, Bentinck Street, London, W.1.

Yours faithfully,
DAVID CARRICK,
Editor, Medical News,
2, Bentinck Street, W.1.

16th August.

Engagements

BARRINGTON WARD GILLQUIST. The engagement is announced between Edward James Barrington-Ward, of Long Melford, Suffolk, and Fröken Jeannie Elizabeth Gillquist, of Stocksund, Sweden.

CASTLEDEN—HERBERT.—The engagement was announced on July 18th between Bill Mark Castleden and Wendy Jane Herbert.

OWEN—EASTER.—The engagement is announced between Dr. David G. Owen and Miss Susan Easter.

STEPHENSON—SMETHURST.—The engagement is announced between Dr. Timothy Patrick Stephenson and Miss Lynne Smethurst.

Births

BROWN.—On July 30, to Barbara (née Green) and Dr. Michael Brown, a son (Peter Timothy), brother for Simon.

PEEBLES.—On August 19, to Lilian and Dr. Douglas Peebles, a daughter (Emma Jane).

Death

HARRIS.—On July 17, Herbert Elwin Harris, M.C., M.A., M.B.Cantab., F.R.C.S. Qualified 1923.

Change of Address

MR. FRANKIS T. EVANS to 3, St. James' Close, Crooked Lane, Birdham, nr. Chichester, Sussex.

Appointments

Royal College of Physicians

Sir Geoffrey Keynes has been appointed Fitzpatrick Lecturer.

S.W. Metropolitan Regional Hospital Board

Dr. J. A. Parrish, M.D.Lond., M.R.C.P., has been appointed consultant physician, Croydon and Warlingham Park Hospital group.

University of London

The title of Professor of Mammalian Morphology has been conferred on Dr. O. J. Lewis.

October Duty Calendar

Sat. & Sun., 2nd & 3rd

Dr. Oswald
Mr. Tuckwell
Mr. Aston
Dr. Cole
Mr. Cope

Sat. & Sun., 9th & 10th.

Prof. Seowen
Prof. Taylor
Mr. Burrows
Dr. Bowen
Mr. McNab Jones

Sat. & Sun., 16th & 17th.

Sir R. Bodley Scott
Mr. Hunt
Mr. Aston
Dr. Ellis
Mr. Dowie

Sat. & Sun., 23rd & 24th.

Dr. Black
Mr. Naunton Morgan
Mr. Manning
Dr. Ballantine
Mr. Fuller

Sat. & Sun., 30th & 31st.

Dr. Hayward
Mr. Badenoch
Mr. Manning
Dr. Jackson
Mr. Cope

Physician Accoucheur for October is Mr. D. Fraser.

HARVEY SOCIETY

Programme for the Michaelmas Term.
18th. October.—Dr. R. J. C. Harris, Head of the Division of Experimental Biology and Virology, Imperial Cancer Research Fund: a talk about the relationship between Viruses and Cancer.

15th. November.—Sir P. B. Medawar: "Do Advances in Medicine Lead to Genetic Deterioration?"

29th. November.—Professor Keith Simpson, Head of the Department of Forensic Medicine at Guy's Hospital: "Observation and Deduction".

TENTH DECENNIAL CLUB

The twenty-ninth Annual Dinner of the Tenth Decennial Club will be held on Thursday, 28th, October, at The English Speaking Union, 37, Charles Street, at 7.00 for 7.30 p.m. (Dinner Jackets).

Please send name and cheque for £2 2s. 6d., with name of guest, to the Secretary: Dr. Geoffrey Bourne, 73, Harley Street, W.1.

GENERAL PRACTICE

Dr. G. McLotte, Adviser to the Hospital on General Practice, will give a lecture at 12.00 noon on Thursday, 21st. October, entitled "A Career in General Practice."

ST. BARTHOLOMEW'S HOSPITAL GOLFING SOCIETY

The Society was founded in 1928. All past students of the Hospital, who are on the Medical Register and members of the Teaching Staff, are eligible to join, on payment of an entrance fee of 5s. The Club meets in June and October, and plays upon courses around London. There are several cups and prizes which have been presented by members of the club, and have been so donated that they allow even those beginners with a handicap of 24 to enter successfully into the spirit of competition.

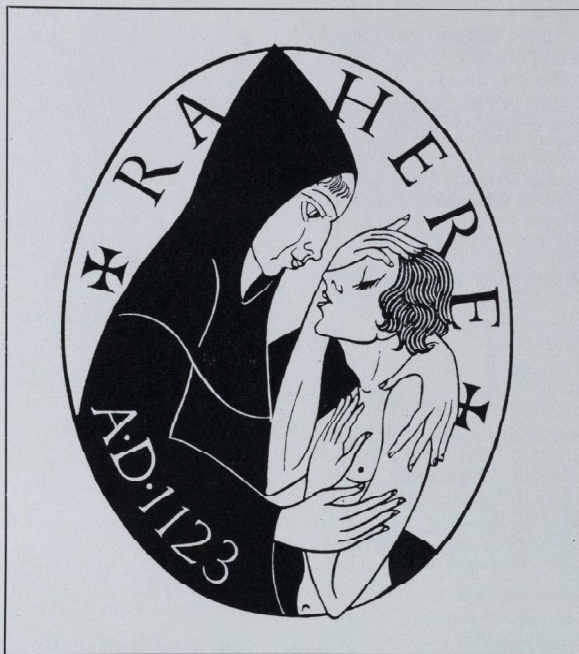
Newly qualified men who are interested in golf, and anxious to maintain a link with the Hospital, should apply for membership to the Secretary: Mr. James O. Robinson, 149 Harley Street, W.1.

FRESHMEN'S DANCE

The Freshmen's Dance will be held in College Hall on Saturday, 9th. October.

Erratum

On page 352 of the September Journal, "Sir Henry Dale went up to Trinity College Cambridge in 1884" should have read "in 1894".



From an engraving by Eric Gill commissioned for the cover design of St. Bartholomew's Hospital Journal in 1937.

The Christmas Card, 1965

Christmas Card Order Form (BLOCK CAPITALS please) No: of cards required.....

NAME: Cost £ s. d.
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Please enclose remittance with order, addressed to The Manager, The Journal, St. Bartholomew's Hospital, London, E.C.1. Cheques and P.O.'s should be made payable to St. Bartholomew's Hospital Journal.

Signed

CONTINUING EDUCATION

by Sir James Paterson Ross, Bt., K.C.V.O.

Director, British Postgraduate Medical Federation

Five years ago when my active participation in undergraduate teaching came to an end and I became deeply involved in the many problems of postgraduate work, the oft-repeated dictum that a doctor's education should be a continuous as well as a life-long process assumed a fresh significance.

Many a reader of the Journal must feel inclined to comment that if the process is intended to be continuous it certainly isn't so now, judging by experience of the premedical, the preclinical and the clinical periods, with their associated examination hurdles, which indicate to the student that he must complete one phase before he is allowed to start the next.

The Preclinical Period

Shortly after the second World War the Board of the Faculty of Medicine in the University of London made a brave attempt to bring the premedical and preclinical subjects together as an integrated course in basic medical science. Unfortunately this sound and far-sighted scheme failed for two reasons: the premedical teachers feared that their subjects might lose dignity and status if they were fused with anatomy, physiology and biochemistry; and the University Grants Committee wished to avoid having to pay for chemistry, physics and biology which, they considered, could be adequately taught at school. Those who then favoured an integrated preclinical course must take a special interest in the three year course in human biology which is now being adopted in certain medical schools as the scientific foundation for clinical studies.

It is now the established aim of clinical teachers, particularly in professorial units, to bridge the gap which unfortunately still exists between the preclinical and the clinical periods. It should not be difficult for clinicians to indicate to students how in the course of their clinical studies they can make use of the

knowledge they acquired in the preclinical period, for the impact of the basic sciences upon the theory and practice of clinical medicine is universally recognized. The occurrence of the gap might be prevented if during the preclinical period the student was allowed or even encouraged to regard his work as the study of medicine, and if clinical teachers were invited at regular intervals to illustrate how the basic science he is learning is applied to the practice of medicine, and more especially how the methods of scientific thought, which he ought to be acquiring, may be employed in the elucidation of clinical problems.

The term "continuing education" is applied, however, not to the continuity which ought to exist in the undergraduate period, but to the process of learning after graduation. It is important that the true meaning of the term should be taken into account, for it infers that undergraduate should run smoothly on into postgraduate education, and that the objectives and the content of the two phases of learning are closely interdependent. Though not the whole truth, yet it is true that the undergraduate period should be the preparation for continuing education throughout the lifetime of every medical man.

The Aims of Clinical Teaching

Stringing together so many platitudes to make up this article would be unpardonable were it not for the misconceptions about the aims of medical education which underlie many of the criticisms of our schools. In days gone by clinical teachers often advised their students to pay particular attention to certain features of disease because the subject under review would prove to be of special importance in their practices. It thus came to be assumed that the standard product of the medical school was the general practitioner, and that only those who wished to "specialize" would be

required later on to undertake further training to add the appropriate skill and experience to the basic education required for general practice. This outmoded opinion, a relic of the era before the birth of clinical science, still echoes in the complaint that the medical schools are attempting to train medical scientists and are not providing a course to meet the needs of the general practitioner.

The truth is, of course, that the whole undergraduate curriculum should provide the basic education to prepare a graduate for whatever form of professional work he may choose as his career, and neither clinical study nor the pre-registration House Appointments should be directed towards any particular speciality — certainly not towards general practice, which is itself a speciality.

What, then, should the undergraduate try to acquire from his clinical studies? He should be introduced to sound methods of examining patients in the wards and out-patient departments so that he may begin to distinguish between normal and abnormal sensations and physical signs, and to associate the latter with the disease processes about which he is being taught in the Department of Pathology. In medicine and surgery he should be concerned with general principles rather than with the technical details of therapy, though he should strive to apply his knowledge of basic science and what he is learning of pathology to thinking out the diagnostic problems presented by his patients; and working from the same premises he should try to evaluate critically the reasons for and the effects of the treatment they are given while under his observation.

For years Clinical Professors have talked about the ideal clinical department for undergraduate teaching in which medical and surgical patients would not be segregated in separate wards, and could therefore be studied together as sick persons without the distracting features associated with different forms of treatment. Unfortunately such a department would present considerable problems in nursing and hospital administration, and schools have had to be content with attempts to correlate and synchronize lectures in the pathology, medicine and surgery of the various systems. It may be that more credit should be given to the student himself for the ability to overcome the artificial divisions between medicine and surgery and see the picture as a whole; yet the latest suggestion of making the final examination a test of clinical method and of the understanding of medicine as a whole, rather than a series of examinations in its separate branches, would

offer a very attractive inducement to teachers and examiners to concentrate on principles rather than on matters of technical detail.

Training in technique begins during the pre-registration year which is therefore to be regarded, though "postgraduate", as the completion of the undergraduate course, the house appointments providing opportunities for the application of principles to practice, and an introduction to clinical responsibility, to the proper doctor-patient relationship, and the correct approach to the patient's relatives. It must be stressed, however, that until the end of the pre-registration period the education of the undergraduate in general medicine and general surgery is incomplete, and that training for a speciality must not begin until after a graduate is registered.

Postgraduate Education

And now, at last, for continuing or post-graduate education! Enough, or perhaps too much, has already been said about the "general" nature of undergraduate medical education; postgraduate education is intended to fit a graduate to practise his speciality—perhaps it is unnecessary to point out that today every medical practitioner is a specialist, and needs a course of training for his work if he is to do it well. Even the most junior student knows that the days are past when a surgeon could be adequately trained by apprenticeship; there are many students and graduates who do not yet realize that a family doctor is a specialist, and that a general practitioner therefore needs a course of training for his work if he is to do it well.

It is unnecessary to go into detail about the training for specialists in internal medicine, or surgery in its various branches, or pathology, or public health, for there are regulations which prescribe the appointments which must be held to provide the necessary experience, and the standard of training required is set as a rule by a special examination, though in most instances it would be true to say that the requirement that a trainee should hold suitable appointments is really of greater importance in practice than the examination test. It is therefore passing strange that general practice, which calls for wider knowledge and deeper human understanding than any other speciality, may be entered without any course of training; and though we should be thankful that such a high proportion of general practitioners have in the past been clever enough to learn by years of experience, yet surely the time has come

for them to follow the example of the surgeons and no longer to rely for their training upon apprenticeship and experience alone.

Training for General Practice

The statement that general practice is the backbone of the Health Service is sometimes regarded as a pretty figure of speech designed to boost the flagging morale of family doctors—on the contrary it is nothing less than hard solid fact. The division of the medical profession into the hospital service, general practice, and the local authority health services has come about not because the profession wished it to be so, but because certain undesirable side effects were inevitable in the administration of so vast an enterprise as the National Health Service. The profession ought not to be split up in this way, and the solution of the difficulty lies in general practice which, if well conducted, can link the hospitals to the local authorities. If the family doctor knows his job, and if the hospital staff co-operate with him as they should, the patient who needs hospital care can obtain it through his family doctor without losing his essential personal contact with him. And again, when any member of a family could benefit from the many services administered by the local authority this sort of help should be obtainable for him, again through the family doctor, provided the latter is familiar with the full scope of the services available to him. Without going into these multifarious services in detail it must be obvious that if a family doctor is to do the best that can be done for his patients there is a great deal for him to learn, and in recent years various training schemes have been devised to enable recently qualified doctors to learn it all within a period of three years, starting immediately after registration.

The training programme consists of three parts: a period of rotating house appointments in paediatrics, obstetrics and gynaecology, psychiatry, otolaryngology and dermatology; a period of training under the direction of a selected general practitioner who works in close contact with his local authority; and specially arranged sessions at maternity, child welfare and school clinics with opportunities to become familiar with the work of district nurses, health visitors, psychiatric and other social workers.

If a man or woman is to be a good family doctor under the social conditions of today, such a period of training for practice is most desirable; but so long as it is not obligatory it will not be regarded as a necessity, and only

those with a strong sense of duty and dedication will delay their entry into the financially more rewarding position of a general practitioner in order to undergo this preliminary training. There is no doubt, however, that if every family doctor had to be trained in this way he would be regarded as a specialist, as he ought to be; he would inevitably be more highly esteemed by his patients, and less might be heard about the inferiority of general practitioners as compared with consultants.

Teaching in Regional Hospitals

The accepted method of continuing education for family doctors was "refresher courses" of a few days, up to a week, at about yearly intervals. Shortly after I was appointed to the British Postgraduate Medical Federation I consulted Dr. (now Sir George) Godber at the Ministry of Health about the unsatisfactory attendances at some of these courses, and I heard from him then the first hint of the part he intended the District General Hospitals to play in the continuing education not only of the hospital staffs but also of the general practitioners and the mental hospital and the local authority medical officers in their neighbourhood. This idea of making every hospital which is large enough to have all the major specialities represented in its services a local focus of postgraduate education has been received with enthusiasm in every region, though some have been quicker than others in implementing their educational programmes, usually because of the enlightened attitude of the particular Regional Board.

The consultants in these regional hospitals are willing and well qualified to teach, for most of those more recently appointed have acquired a taste for teaching as Senior Registrars. They will take it in turn to organize the educational activities in the "medical centre" which consists of lecture and seminar rooms, a library, an office for the organizer's secretary, and usually a small canteen to provide snack meals for those attending conferences, discussion groups or lectures. The greatest problem is finding the time for such teaching and learning; many medical centres have found that lunch time meetings suit both general practitioners and hospital staff, the alternative being an evening session when again light refreshments form an agreeable accompaniment to academic endeavour.

Already, therefore, it is misleading to apply the term "non-teaching" to these regional hospitals. Hitherto the Teaching Hospitals have

been those with associated undergraduate medical schools; in future it will be more correct to refer to the undergraduate and the postgraduate teaching hospitals. The relationship between an undergraduate school and its parent university is self-evident. It is not generally known that every University has a Postgraduate Medical Dean, and as the organizers in the medical centres in regional hospitals are appointed by the University to assist the Dean, the educational work in these hospitals is to be regarded as a joint enterprise between the University and the Regional Board.

Finally it should be noted that the establishment of teaching centres in regional hospitals is having a very healthy effect not only on individual doctors but also upon their professional relationships. Reference has already been made to the unhappy division of the profession into three parts; but when general practitioners and local authority medical officers meet their colleagues in the district general hospital to share the educational work, to which everyone contributes from his own knowledge and experience, artificial divisions disappear and mutual respect can flourish.

medicine in literature

Two Extracts from

WAR AND PEACE

by Leo Tolstoy (1828-1910)

Translated by Louise and Aylmer Maude

Book IX, Chapter XVI, : Natasha's illness. The Use of Doctors.

On receiving news of Natásha's illness, the countess, though not quite well yet and still weak, went to Moscow with Petya and the rest of the household, and the whole family moved from Marya Dmitrievna's house to their own, and settled down in town.

Natásha's illness was so serious that, fortunately for her and for her parents, the consideration of all that had caused the illness, her conduct and the breaking off of her engagement, receded into the background. She was so ill that it was possible for them to consider in how far she was to blame for what had happened. She could not eat or sleep, grew visibly thinner, coughed and, as the doctors made them feel, was in danger. They could not think of anything but how to help her. Doctors came to see her singly and in consultation, talked much in French, German, and Latin, blamed one another, and prescribed a great variety of medicines for all the diseases known to them, but the simple idea never occurred to any of them that they could not know the disease Natásha was suffering from, as no disease suffered by a live man be known, for every living person has his own peculiarities and always has his own peculiar, personal, novel, complicated disease unknown to medi-

cine—not a disease of the lungs, liver, skin, heart, nerves, and so on mentioned in medical books, but a disease consisting of one of the innumerable combinations of the maladies of those organs. This simple thought could not occur to the doctors (as it cannot occur to a wizard that he is unable to work charms), because the business of their lives was to cure, and they received money for it and had spent the best years of their lives on that business. But above all, that thought was kept out of their minds by the fact that they saw they were really useful, as in fact they were to the whole Rostóv family. Their usefulness did not depend on making the patient swallow substances for the most part harmful (the harm was scarcely perceptible as they were given in small doses), but they were useful, necessary, and indispensable, because they satisfied a mental need of the invalid and of those who loved her—and that is why there are, and always will be, pseudo-healers, wise women, homeopaths, and allopaths. They satisfied that eternal human need for hope of relief, for sympathy, and that something should be done, which is felt by those who are suffering. They satisfied the need seen in its most elementary form in a child, when it wants to have a place rubbed that has been hurt. A child knocks itself and runs at once to the arms of its mother or nurse to have

the aching spot rubbed or kissed, and it feels better when this is done. The child cannot believe that the strongest and wisest of its people have no remedy for its pain, and the hope of relief and the expression of its mother's sympathy while she rubs the bump, comforts it. The doctors were of use to Natásha because they kissed and rubbed her bump, assuring her that it would soon pass if only the coachman went to the chemist's in the Arbát and got a powder and some pills in a pretty box for a ruble and seventy kopeks, and if she took those powders in boiled water at intervals of precisely two hours, neither more nor less.

* * *

Book X, Chapter XXXVII:

The operating tent. Portion of Prince Andrew's thigh-bone extracted.

One of the doctors came out of the tent in a blood-stained apron, holding a cigar between the thumb and little finger of one of his small bloodstained hands, so as not to smear it. He raised his head and looked about him, but above the level of the wounded men. He evidently wanted a little respite. After turning his head from right to left for some time he sighed and looked down.

'All right, immediately,' he replied to a dresser who pointed Prince Andrew out to him, and he told them to carry him into the tent.

Murmurs arose among the wounded who were waiting.

'It seems that even in the next world only the gentry are to have a chance!' remarked one.

Prince Andrew was carried in and laid on a table that had only just been cleared, and which a dresser was washing down. Prince Andrew could not make out distinctly what was in that tent. The pitiful groans from all sides, and the torturing pain in his thigh, stomach, and back, distracted him. All he saw about him merged into a general impression of naked bleeding human bodies that seemed to fill the whole of the low tent, as a few weeks previously, on that hot August day, such bodies had filled the dirty pond beside the Smolensk road. Yes, it was the same flesh, the same *chair à cannon*, the sight of which had even then filled him with horror, as by a presentiment.

There were three operating tables in the tent. Two were occupied, and on the third they placed Prince Andrew. For a little while he was left alone and involuntarily witnessed

what was taking place on the other two tables. On the nearest one sat a Tartar, probably a Cossack judging by the uniform thrown down beside him. Four soldiers were holding him, and a spectacled doctor was cutting into his muscular brown back.

'Ooh, ooh, ooh!' grunted the Tartar, and suddenly lifting up his swarthy snub-nosed face with its high cheek-bones, and baring his white teeth, he began to wriggle and twitch his body and utter piercing, ringing, and prolonged yells. On the other table, round which many people were crowding, a tall well-fell man lay on his back with his head thrown back. His curly hair, its colour and the shape of his head, seemed strangely familiar to Prince Andrew. Several dressers were pressing on his chest to hold him down. One large white plump leg twitched rapidly all the time with a feverish tremor. The man was sobbing and choking convulsively. Two doctors—one of whom was pale and trembling—were silently doing something to this man's other, gory leg. When he had finished with the Tartar, whom they covered with an overcoat, the spectacled doctor came up to Prince Andrew wiping his hands.

He glanced at Prince Andrew's face and quickly turned away.

'Undress him! What are you waiting for?' he cried angrily to the dressers.

His very first remotest recollections of childhood came back to Prince Andrew's mind when the dressers with sleeves rolled up began hastily to undo the buttons of his clothes and undress him. The doctor bent down over the wound, felt it, and sighed deeply. Then he made a sign to some one, and the torturing pain in his abdomen caused Prince Andrew to lose consciousness. When he came to himself the splintered portions of his thigh-bone had been extracted, the torn flesh cut away, and the wound bandaged. Water was being sprinkled on his face. As soon as Prince Andrew opened his eyes, the doctor bent over, kissed him silently on the lips and hurried away.

After the sufferings he had been enduring Prince Andrew enjoyed a blissful feeling such as he had not experienced for a long time. All the best and happiest moments of his life—especially his earliest childhood, when he used to be undressed and put to bed, and when leaning over him his nurse sang him to sleep and he, burying his head in the pillow, felt happy in the mere consciousness of life—returned to his memory, not merely as something past but as something present.

Arrest of Dental Haemorrhage

This article was prompted by the universal complaint of one's medical colleagues that they often have to deal with post-extraction dental bleeding. This can be a very time-consuming and tedious task, but if the following methods are used at once, they are effective.

CAUSES OF DENTAL HAEMORRHAGE

General

Congenital, or acquired causes, in the clotting process or the vessels, are not examined here because they require general medical treatment, which it is not the purpose of this article to detail. However, a history taken from the patient, or a complete failure to secure haemostasis will reveal them.

Local

Any post-extraction bleeding arising *de novo* is almost always due to these:

- (i) Trauma during extraction
- (ii) Pre-existing inflammation with its attendant vaso-dilation.

ANATOMY OF THE HAEMORRHAGE

Anatomy of the Haemorrhage

- (i) From the bony walls of the socket and the apical vessels serving the tooth.
- (ii) From the gingival tissues and mucosa around the socket.

Bleeding from the bony walls of the socket:

The site of the haemorrhage is most difficult to detect, but if it can be seen, the bleeding point is crushed with the blunt end of any instrument such as the nose of a pair of Spencer Wells forceps. Failing this, the socket can be packed with $\frac{1}{2}$ " ribbon gauze and sutured across the mucosal edges, the pack being removed after twelve hours. This will probably produce a dry socket, an extremely painful complication. Fortunately these methods are very rarely needed.

Bleeding from the mucosa:

This is the most common site of haemorrhage. It is caused by the trauma inherent in thrusting the forceps blades up the periodontal membrane of the tooth to dilate the socket. As usual, when the vessels are not divided cleanly, the tunica intima does not retract and bleeding continues. These vessels are small, and if they can be compressed against bone they are occluded. For this purpose either pressure packs or tension suturing may be used and of these suturing is the surest and quickest technique.

TREATMENT

Psychological

The patient is often distressed at the loss of what appears to be a large amount of blood. He should be reassured and told that the blood is diluted with saliva, which makes it appear to be a large quantity.

B. D. Markwell, Chief Assistant, Dental Department

Practical

A good light and, if possible, a sucker are invaluable. The patient's head is rested on a wall or trolley. All clots are removed and the patient is allowed to rinse, then the edges of the socket are firmly pressed together with the fingers.

Pressure packs

With careful application a proportion of haemorrhages can be arrested with packs. If time is the first consideration, suturing should be done at once and packs not used.

The pack is a tightly rolled piece of gauze or gamgee about $\frac{3}{4}$ " in diameter. This is placed accurately over the socket and the patient instructed to bite on it firmly without moving for twenty minutes.

Local Anaesthesia

A quiescent patient helps rapid and effective suturing and a local anaesthetic is essential. 2% Lignocaine with 1:80,000 Adrenaline is used. In the mandible about 0.5 ml. is infiltrated on the buccal and lingual surfaces at the point where the mucosa becomes detached from the alveolus. In the maxilla, on the palatal surface, about 0.25 ml. is infiltrated at a point one third of the distance from the gingival margin to the midline, and on the buccal surface at the reflection of the mucosa.

Suturing Materials

As the prime purpose of suturing is to apply tension, strong material is necessary. Gauze 2/0 silk is suitable. Also, the needle has to penetrate periosteum and needs to be strong enough not to break in the needle holder under the necessary force. A Lanes No. 4 half-round cutting needle, or a No. 18 half-round needle have the necessary strength but are not too large to manipulate in the mouth. The writer finds a Gillies suture holder best.

Suturing Techniques

As the maximum trauma is usually at the centre of the socket where the forcep blades have been thrust in and the tooth rocked, this is the commonest site of haemorrhage. Often, one suture across the socket here will arrest the bleeding.

To avoid cutting through, a good bite of periosteum must be taken. The needle is entered on the buccal surface about 4 mms. from the gingival margin, passed through to bone and up under the periosteum to emerge into the socket. At the other side of the socket the needle is passed down under the periosteum about 4 mms. The easiest way to tie the knot is to bring the needle outside the mouth and wind a double twist of silk around the suture holder as if round a spool. As the knot is tightened, as much tension as possible is applied, and as a good bite of periosteum has been taken this can be considerable. A double twist is then taken in the opposite direction. If the bleeding does not stop, then more sutures are put across the socket until it does.

Lacerations

These can be pulled into apposition by the sutures across the socket, and if necessary then sutured themselves. This is not necessary unless they are gaping and exposing bone. A mattress suture across the socket may achieve both haemostasis and apposition of lacerations, which in any case heal rapidly.

Local Haemostatic Agents

The writer has not found these to be as effective as suturing, whether they be of the type which acts on the blood or the vessels.

Other Methods

Those methods requiring mechanical techniques such as splints or bite blocks have not been described as they require the services of a dental surgeon.

Pursuing a Legend



I sat on the swivel seat nursing the wheel between my knees and looking across the inky water: to my right and left ran the avenue of hills that is the Great Glen. The boat was pitching heavily. There had been a sudden change in the wind and a gale was blowing, forcing us to ride it out in the loch. David, the skipper, owner and only other member of the crew, appeared up the companion-way with a couple of cups of hot Bovril. We discussed the effect of the change in the weather on our plans for the search. Somewhere out there in those thirty-odd square miles of turbulent water, which are more than twice the depth of the North Sea, was the animal we were seeking. Our boat was called the *Snark*, after that imaginary and elusive

animal invented by Lewis Carroll. It was ironical that we should be using her to hunt another creature, also legendary, but also living. A huge animal of extraordinary appearance which officially does not exist. It was the Loch Ness Monster.

Two weeks before, I had arrived at the loch prepared for what I had innocently assumed would be a pleasant picnic cruise up and down a glorified lake. It was just after dawn as I had wandered down to the caravan and collection of tents that was the Loch Ness Patrol Headquarters. Two figures sat huddled beneath oilskins on a raised bank: one was scanning the loch through an enormous pair of naval binoculars mounted on a tripod whilst the other sat behind three cameras—cine, still, telephoto—and a rangefinder. He was also instinctively peeling the bowl of potatoes that rested on his lap, while gazing across the water. As I approached the caravan I was greeted by an attractive secretary, typing away at a desk improvised from a crate of stores.

"You must be the crew for *Snark*. Molly is just making breakfast inside. You had better go and get some."

A bedraggled figure in a rubber boat appeared round the headland. It was Colonel "Blondie" Hasler retrieving a canoe that had broken loose in the night: soaked, he ate his breakfast, while discussing the comparative effects of atmospherics on the high and low frequency hydrophones, with two electrical engineers. This Wellingtonian figure, this wartime leader of the "Cockleshell Heroes" and veteran of single-handed Atlantic yacht races, was in charge of the Loch Ness Patrol. One could not fail to be impressed by his efficiency and sincerity. Around him were the people he had collected, lawyers, servicemen, businessmen, scientists and students; they had nothing in common except that they had all given up their holidays to chase a legendary animal. I little dreamt that within a fortnight, I too would get a brief glimpse of the Monster.

The expedition was at the loch for two months. Its personnel were continually changing as their holidays finished, only to be replaced by fresh volunteers. The monster was hunted in a variety of ways:—

1. By direct observation from land.

Observation posts were established at various sites along the side of the loch which had unrestricted views of large stretches of its surface. These were manned by teams, each of two observers, armed with binoculars and a formidable collection of photographic equipment; they maintained a watch on the loch throughout daylight hours.

by John Richardson

2. By direct observation from a boat.

Jester, Hasler's sailing yacht, patrolled a square mile of the loch for a 24 hour period; each day the boat would move another mile down the loch. The patrol H.Q. also watched this area of the loch from the land. It has been suggested that the monster is very sensitive to sound as it has been observed suddenly to submerge when motorised fishing vessels are in the vicinity. This would also explain the comparative lack of sightings from the drifters that often pass through the loch. For this reason *Jester* was under sail for the whole period.

3. By underwater listening.

Two boats towed high and low frequency hydrophones behind them. Large quantities of peat are washed down into the loch from the surrounding hills reducing the underwater visibility and giving the water its characteristic inky appearance. It was thought that the monster may have had some form of echo location and we were trying to pick up the impulses.

4. By echo sounding.

The boats were fitted up with echo sounders and six sweeps were done of the whole loch, with two or three boats abreast. It was hoped that any animal sensitive to our particular frequency would be driven down to the end of the loch before our curtain of sound. On the other hand, if the creature was unaffected by Asdic, it ought to pass through the curtain, when its presence would be registered as a mark on the paper. Echo sounding needs careful interpretation, and we decided to establish the kind of echo we might expect from the largest fish recorded in Loch Ness. These are salmon and they may weigh up to 50 lbs. We could not get any of this size but we made tests with fish, a dead deer and sacks of inanimate rubbish. This way we obtained a good idea of the echo to expect from a really large salmon. Anything giving a considerably larger echo was termed a monster.

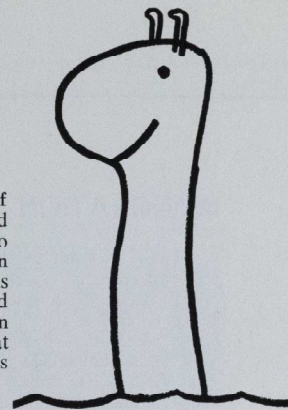
During the six sweeps only one such echo was obtained, but this was of particular interest as it was recorded just before 'a pole-like object' was sighted in the same area of the loch. This is an almost universal description used to describe what appears to be the head and neck of the animal, sticking vertically out of the water. Indeed this is how the monster appeared to me.

5. By a study of the ecology of the loch.

While we were observing the loch, biologists from both Cambridge and Birmingham Universities were studying its natural flora and fauna. They could always be seen disappearing towards the loch with trawls and 800 ft. fishing lines which took as long as two hours to pull in.

We hadn't caught the monster by the end of this improbable safari: we never intended to. Neither had we got a close up photograph of it to prove its existence to its critics. However we did get brief glimpses of it, and we managed to learn a lot more about the loch which has been valuable to those planning further expeditions.

Finally we had restored some of the academic interest in this mystery, which was unfortunately the victim of so many hoaxes in the thirties that it had ceased to be a subject of serious discussion.



aurelius

IMMIGRATION

Until 1962 one of the privileges extended to members of the Commonwealth was free entry of citizens into the mother country. Not a very large number of people chose to exercise this right until about 1952 when Commonwealth citizens began to realise that there was opportunity in the United Kingdom to enjoy a higher standard of living than at home. The Government noticed that more people were taking advantage of this right, and began in 1955 to make a rough count. That year 42,700 immigrants arrived and by 1961 the annual arrival had risen to 136,400. The Government of the day decided that this was rather more than could easily be absorbed into our small island community, and so reluctantly introduced a rather vague restriction on numbers, despite fierce Opposition objections. The Act, which must be renewed annually, requires that any Commonwealth citizen wishing to work here must obtain a Ministry of Labour voucher. Applications for vouchers are divided into three categories: Category A for those who have a specific job to come to, Category B for qualified persons such as doctors, nurses and teachers without a job to come to, and Category C for all others (not more than 25% to one country). Categories A and B were dealt with in priority, and the Government reserved the right to decide upon the number issued per week. In 1963 they were issued at an average weekly rate of 600, but this has now been cut down to 400, which leaves no room for Category C (there are 300,000 on the waiting list in this group). Since the introduction of the Bill, citizens from Canada, Australia, and New Zealand have accounted for 2,585 vouchers and they have brought with them 5,542 dependents. Citizens from "other Commonwealth countries" have accounted for 49,337 vouchers and 86,194 dependents.

In the *White Paper on Immigration from the Commonwealth* published in August, the Government outlines the plans for the future. It has been decided, for no stated reason, to cut down the number of vouchers to 160 per week, $\frac{1}{3}$ th of which are for Malta, and to abolish altogether Category C. The professional qualifications needed for Category B are clarified, and it is added that not more than 15% of Category A vouchers (for skilled or unskilled workers) may go to one country. These facts and figures show quite clearly that it is the citizens from the 'other countries' who will be hit hardest, and everyone knows that that means coloured people. It may well be that this is the wish of the majority of bigoted Britons but as a *Punch* Editorial pointed out, it is not always the duty of a government to carry out the wishes of an ignorant populace, but rather to educate and guide it along the course of justice.

Coloured immigrants form a very useful section of our society, running our public transport, keeping the London hospitals clean, and providing the doctors and nurses in many hospitals amongst other things. And it is fairly obvious that they are not being integrated into our reserved island society too easily. In all fairness, the second half of the White Paper does have some more constructive plans aimed at easing integration concerning housing, health, employment, liaison committees, education (of immigrants, not natives), and grants to local authorities who have a financial burden to bear from these. Since there are more people emigrating from this country than immigrating, one cannot accept that it is necessary to reduce the number of immigrants to 40% of the present rate.

RACE RIOTS

Los Angeles, the golden city of the west, the city of opportunity, sun and entertainment has been described as a mass of suburbs in search of a centre. It sprawls across 500 square miles of the basin, suburb after suburb running indistinguishably into one another. It is surrounded by some of the most beautiful and fertile land in the United States, and has a centre so uninspiring that nobody bothers to go there. It is a place which harbours the weirdest religious sects, the most extreme political organisations, Hollywood and all its hangers-on, and yet is a haven for intellectuals like Stravinsky, Isherwood and the late Aldous Huxley. "If you tilt the U.S. sideways, Los Angeles is the place where everything loose will fall." It is rare to meet a Los Angeles man born and bred, for this is a land of immigrants from other states as well as other countries. 523,000 of its population are negroes, with whom in the words of the Governor "We've always had harmonious relations." That's what everyone thought until on the night of Wednesday 11th August there erupted the most destructive riot in the history of U.S. race troubles. For five days the Watts district became a blazing battlefield of terrifying violence, with 34 people killed, almost 900 injured, and 100 million dollars worth of damage.

What was all the fighting for? It all began with the arrest of a drunken driver. A crowd gathered, became angry, became a mob, became a riot. Continuous police brutality was the commonest reason given as to why such an insignificant incident should have led to a riot of such dimensions. The Chief of Police fiercely denies the brutality charges, though there is ample photographic evidence of manhandling at the time of the riots. Some white Angelenos dismiss the idea of people fighting for their rights, for the Negroes already have equal rights, it was just a bunch of hardened criminals and looting hoodlums capitalising on a situation. True that 1,000 of the 3,758 arrested already had criminal records, but there seems to be some grave social sickness which allows 65,000 negroes to live in a near-slum district where one in five of the houses are condemned, one in three of the children are illegitimate or come from broken homes, and large numbers of the male population are illiterate and unemployed.

These grim social conditions are undoubtedly the underlying cause. Having equal rights is not much consolation if you have no job, a squalid home and no self-respect. As one Negro psychiatrist said, "those people have been told so often that they are no good that they don't think much of themselves." Most Angelenos are prepared to do business with negroes, go to school with them and visit the same entertainments, but there exists a strong social prejudice, largely because so many of the negroes are suffering from the results of prolonged under-privilege and education. Tremendous efforts are needed to cure these social ills, to elevate the conditions of housing and education, and to prevent the formation of frustrated subjugated ghettos. Violence of this sort does not help anyone; it casts a disreputable shadow over the Civil Rights organisations, and embitters and angers the already prejudiced white population. But unless relations are improved quickly there is bound to be more violence, and the wounds will be harder to heal each time.

* * *

Freshmen Only

ABOUT THE JOURNAL

The *Bart's Journal* is 72 years old this month. It is available free of charge to all students of the Medical College, and is distributed to the various cloakrooms at the Hospital and Charterhouse. The official affairs of this septuagenarian are governed by the Publications Committee, which meets every month under the Chairmanship of Dr. A. W. Franklin to consider articles submitted for publication. A Clinical and Research Supplement is pub-

ABOUT BART'S LIFE

It is an impossible feat for one person to describe life in a structure as complex and varied as Bart's; the most one can do is to present certain aspects that are within one's limited experience. Any institution is essentially its people: some of them here are as grey and impenetrable as the walls of Bart's, but most of them have something to offer. Bart's is fairly sportminded as hospitals go. Whilst this doesn't mean that everyone plays rugger, most people do play something even if it's only snooker or darts. Off the games field some of them play musical instruments in the recently formed dynamic orchestra, which is gaining strength with each concert, whilst others sing in the choir. Others play-act in anything from Pirandello to bawdy Christmas ward shows. Some write for the *Journal* or for that infrequent publication (now alas defunct?) *Broad-sheet*; and a few go to hear the varied and interesting talks at the Abernethian Society. You've a fair chance of finding a Bart's man at a pub anywhere in London, but most of them drop into one of the pubs around the hospital from time to time. If you wanted to you could probably go to a Bart's party every Saturday night of the year, and evidently some people don't get tired of seeing the same faces week after week; only the venue and the nurses change. If you're a girl don't be put off by the fact that there are 800 nurses—you will still be in great demand, but take care to preserve your femininity and not to become one of the chaps.

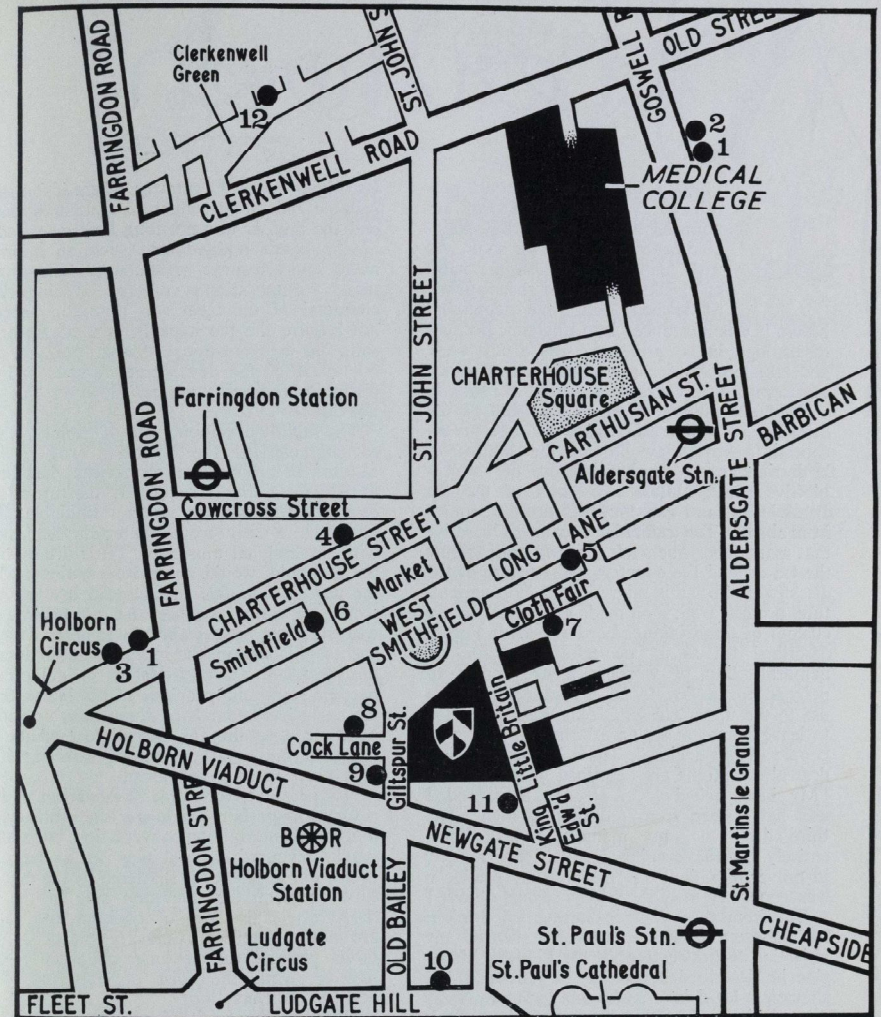
Physical environment casts a powerful influence over the society which lives and works within it. Charterhouse is essentially modern,

lished with the January, April, July and October editions.

The editorial and managerial sides of the *Journal* are entirely in the hands of the students. We work in a converted cupboard off the first landing upstairs from the Library—a diverticulum en route for Pathology—and we would be glad to see any freshmen interested in writing for the *Journal* or joining the staff. We offer you all a very sincere welcome to the Royal Hospital.

not unconventionally so or way-out, indeed many of its buildings are dull and unexciting. The hospital with its Gibb building, its magnificent gate and generous square could hardly present a greater contrast. For this reason the man who comes to Charterhouse as a pre-clinical student will form quite a different impression from the Oxbridge man coming straight to the hospital. This contrast may help to explain one of the tragedies of Bart's life: that although the two schools are but five minutes apart, the wall of 2nd M.B. forms a ruthless barrier which only comes down on Wednesdays and Saturdays when sportsmen gather together at the no-man's land of Chislehurst. Nobody wants this partition to exist, and indeed its destruction would be beneficial to all.

The first few weeks of the course will not exactly overtax your energies (especially the clinical student's), so take advantage of this time to explore the city. There is much of interest to see within a few minutes' walk of Bart's such as St. Paul's, St. Bartholomew's the Great, Bow Bells, Old Bailey, The Bank of England, The Stock Exchange, Fleet Street and the Cheshire Cheese, The Mermaid, and the Barbican, to name but a few. One last word of advice. Even in a city as exciting as London it is all too easy to rely upon Bart's exclusively for one's education and social life, and so slide into a state of cosy insularity. Don't forget about the museums and art galleries, the theatres and concerts and the thousands of other students within the University, for there is no figure so dull and pathetic as the full-time professional medical student.



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|--|---------------------|------------------------------|
| 1. Clifford's (Men's Hairdresser) | 5. Old Red Cow | 9. White Hart |
| 2. Josephine's (Ladies' Hairdresser) | 6. The Cock | 10. Lipman's (Clothes' hire) |
| 3. Holborn Surgical Instrument Company (Dissecting sets, stethoscopes) | 7. Bart's the Great | 11. G.P.O. (24 hour service) |
| 4. Rushbrooke's (White lab coats) | 8. Pete's Café | 12. Crown (The 'Doctor's') |

Afternoon

In 1657, a London coffee-house proprietor, Thomas Garraway, announced that tea would be obtainable henceforth from his shop. As with many innovations, the habit of drinking tea had been firmly established on the continent before it was introduced into England. Because of its high initial price, tea was drunk weak and taken mainly for its medicinal effect, which was compared favourably with that of rhubarb.

By the beginning of the 18th. century, tea drinking was well established as part of the routine of everyday life in the houses of both rich and poor; but because of its prohibitive price, almost two-thirds of the tea drunk in England was smuggled into the country from abroad. Tea trafficking became so lucrative that many landowners left the land to distribute the tea around the country; and because of the disastrous effect this migration had on agriculture, protests were soon made against the whole custom of tea drinking. Lord President Forbes described tea as a "powerful agent for the demoralisation of working men", and campaigned for a law to be passed confining its use to the upper classes. John Wesley decided to leave off tea to set an example to the "poor people of our society". These interesting withdrawal symptoms are described in his journal: "My head ached . . . all day long, and I was half asleep from morning to night. The third day . . . my memory failed almost entirely. In the evening I sought my remedy in prayer. On Thursday morning my headache was gone. My memory was as strong as ever."

But from that most inveterate tea drinker, Dr. Johnson, came a reply which silenced any objection to the custom. In the *Literary Magazine* he described himself as "a hardened and shameless tea-drinker, who has for many years diluted his meals with only the infusion of this fascinating plant; whose kettle has scarcely time to cool; who with tea amuses the evening, with tea solaces the midnight—and with tea welcomes the morning."

It was not until the beginning of the reign of Queen Victoria that afternoon tea was invented.

Its origins lay in the nursery, where it formed a suitable meal with which the children might end the day. It was not long before the ladies of the house realised that such an informal meal could form a welcome prelude to the more formal dinner of the evening. The character of the meal was domestic and did not require the participants to dress up or to shine at conversation. It was, perhaps, the one meal of the day where dullness and informality reigned supreme. However this did not last for long.

The rapidly developing cult of "home", which so characterised the Victorian way of life, resulted in the elaboration of what had been, until then, a simple snack. By the turn of the century, afternoon tea was a formidable affair at which a lady would entertain her guests with professional musicians. Little dishes, both hot and cold, would abound everywhere, while the guests, if unable to entertain by their wit, would certainly enhance the proceedings by wearing their most elaborate toilettes. Despite such sophistication, the intimate possibilities of the meal had not been lost nor had the meal become solely the province of the ladies. Soon the exclusive demands of domesticity on people began to wear thin, as they discovered the delights of taking afternoon tea outside, either in a hotel or in a restaurant.

Nowadays afternoon tea has deteriorated into a very sorry affair. No longer the intimacy no longer the entertaining conversation, but a hasty snack devoured unthinkingly in a darkened room, whose privacy is shattered by the raucous cacophony of the television set. In the tea shop, where the arts of cooking and eating are never practised, vistas of plastic topped tables glare at the customer under fluorescent lighting, while the noise of clattering plates murders conversation.

However the spirit of afternoon tea is not yet dead. It is in certain hotels and restaurants that the special character of the meal can be best experienced. For this reason, we give below a list of the leading exponents of the art of afternoon tea with an accompanying description of their attractions. They are judged

Tea

by Messrs
R. Clayton
& C. Watkins

not only on the quality of the food which they provide, but also on their standards of service, the décor and size of their rooms, and the amount of privacy they allow. These factors determine the suitability of the entire atmosphere, which is expressed in the form of a star system.

The Waldorf Hotel

So called "Palm Court" is a vast room of obscure architectural vintage, with a forlorn aspidistra as highlight of central floral assembly. Elevated gallery at periphery communicating with other public rooms for those who wish to feel privileged. Set Afternoon Tea 5/- or à la carte (portion of cucumber sandwiches, when in season, 2/6). Enjoyment offset by hyperspacious, breezy and noisy situation. Watch for the flies.

Fortnum and Mason

Restaurant top floor, waitress service, can get crowded, low ceiling, murals. Unique selection of teas, we had splendid Royal Blend (Indian/Ceylon) 2/6. Droll gateaux 2/6 for small piece. If you're lucky Miss Fiona French will wind her way around the tables in a most satisfying manner showing off the latest F. & M. ensemble. Not for claustrophobics.

The Fountain Restaurant downstairs is very noisy with constant comings and goings, although as Henry Fielding said over his turtle soup: "Love and scandal are the best sweetners of tea."

Brown's Hotel, Albemarle Street

Tea in a multifaceted lounge so that one can have a corner to oneself. Wide choice of seats and their arrangement. Oak panelling, Grandfather clock, French mirrors, velvet curtains and discreet service contribute to quiet but colourful, Peacockian atmosphere. Set afternoon tea 4/6 or just toast and jam. Time passes effortlessly.

Café Royal

Small cocktail room, impacted against a Regent Street bus stop for tea. In spite of charming Edwardian décor, there is a curiously insipid atmosphere. Fine red carnation in the

middle of each table. Dirty teapots and cups, fossilising spoons and forks. A la Carte menu: tea 2/6, ours was so weak that after two cups we had to ask for another pot (wasn't it Thackeray who asked why tea could "taste of boiled boots"?); mini-sandwiches 1/- (including cucumber); delightful chocolate éclairs 2/6. No toast.

The Hilton Hotel

Tea served in 'patio' to the International Restaurant, 2nd floor. Architecture rather in the style of 'Compact'—flamboyant and tasteless. We sat opposite the 007 room. One of us, C.W., suffered an attack of hay fever from the plastic shrubbery dripping from the balcony. Set afternoon tea 9/6, lots of good, real tea and deliciously seductive cakes—have three. Potted music.

The Georgian Coffee House

This is a very quaint little place hidden away in picturesque Goodwins Court, off St. Martins Lane, W.C.2. It is run by two bearded gentlemen, one of whose botanical inclinations has led to the coloured prints on the wall, shrubbery in odd places, wooden rafters, and pine benches to sit on. Exquisite toast 10d. to 12d. (we had ours medium rare). There's also a wide variety of sandwiches to 4/-. Cheerful service. Limit your party to two or three. Note: the toast comes on separate plates, so there is no squabbling over the last piece.

Benedick's, 55, Wigmore Street

Nondescript but pleasant interior: waitress service. Mainly country people come here. Set afternoon tea is 7/6 (including scones and ice cream) but we had a generous cream tea with fine strawberry jam (5/6). Don't forget to buy some of their chocolates.

The India Tea Centre

Ostensibly a place for the connoisseur. The colours combine in a wooden tribute to the tea-leaf. We tried "Assam"—sought after for its strength, grip, and pungency (less exciting on acquaintance), and Nilgiris—a leaf from the highlands—a lighter and more subtle infusion. Minimum charge: 2/6 per person.

Social Chapter

OUTPATIENTS REVISITED by James Casson

The author renews his acquaintance with the Outpatients Department (see **Follow The Yellow Line** in the May Journal).

After general devastation an uneasy truce has been resolved. A disastrous outpatient clinic earlier in the year highlighted the problems. Two consultants, both eminent men, were working in the same room; one wall was ominously replaced by hardboard, from behind which there came prolonged bursts of pneumatic drilling. Auscultation was out of the question. Here were men obviously dedicated to the cause of medicine.

But of late the situation has improved—I suspect because the contractors are taking a summer holiday. However I could not but admire one man using a “hotted up” oxyacetylene type of apparatus to burn through solid concrete, thereby avoiding the noise of mechanical drilling. Poor chap, complete with mask and goggles, even Shadrach, Meshach and Abednego would have had their faith exercised. Long may the good work continue.

The back approach too is improved; cement has been used to fill in the more hazardous irregularities of the surface. This much frequented passage, complete with manhole covers and direction signs, must rival the square as the big attraction at Bart's. I refer to the unique opportunity afforded of keeping abreast with popular record releases. From some upper story window the 'Animals', 'Stones', 'Kinks' and 'Pretty Things' interrupt the comparative peace of the lunch hour. This, by the way, is

BOLDING'S PROGRESS by Our Social Correspondent

Ian Bolding, medical student extraordinary, has just finished his first preclinical year at Bart's (see **A Hard Year's Tight** Journal Oct. '64). Detoxicated by his first summer vac he returns for more. Now read on . . .

“Bolding's round”, Ian reversed his sweaty face into the scrum behind him. “My turn

the best time for listening. I suspect the psychiatrists are trying to get with it; heaven help them, they've a difficult job.

An attractive radiographer remarked to me recently how lonely it is being on night duty in the Outpatient department; indeed, she ventured to say 'frightening'. Two deserted floors separate them from the 'Emergency Ward 10' atmosphere down below. Surrounded by massive pieces of X-ray machinery, bags of cement and assorted bulding materials, life must be pretty bleak. There's more to casualty surgery than taking headcharts; how else could it provide sufficient material for two television serials? So if there is nothing doing downstairs . . .

The real problem is getting up there at all. The stairs are all right but since there are lifts why not use them? At least, that's how I argued till I tried. I suppose there were twelve of us altogether—it says “Maximum Capacity 10 Persons”—and the liftman warned us too. The gates slammed across and we prepared to ascend. There was a shudder and the lift rose about a foot before slipping back to its previous position. The liftman grunted and stamped his foot on the floor. We tried again, this time with more success—a good two feet off the ground before giving up the unequal struggle. With a shrug he called for volunteers to stand down. There was a prompt response; the gates closed and the earth-bound device, heretofore designated “lift”, disappeared from view at a speed guaranteed to relieve the most chronic ulcer. “Per ardua ad astra.” I mused, and set off up the stairs.

“lads?” he said with apparently little demur. Still it was good to be back and this evening should ensure his place with the old Extra 'B'. “Make that pints, George”, he barked . . .

With second MB in two term's time Ian decided to leave his old flat and was now somewhat anonymously in digs in Acton. “Finger out, old man”, he would tell himself

as he shaved each morning. Acting on this he drew up a drinking plan with circles round each Saturday. And there he would be strictly at the bar for the college hall hops. Two weeks later he bought a pre-war Morris. In retrospect it had perhaps been a mistake to allow Jennifer to persuade him to call it “Bluebell” . . . but it might prove to be worth it.

By November Ian was strongly back to form either happily helping behind the college hall bar or busily working under the bonnet of his car, now renamed “Trelawney” and complete with Bart's emblem on each door. He had been promoted to Transport manager of the Extra 'B' and was planning to write up his memories of Venice for the Journal. Life had again achieved its customary fullness but he stayed on in his digs, making a point of sending his infrequent letters home from that address to emphasise the work angle.

Strictly to himself Ian had to admit that the year ended in near catastrophe. Unaccountably Jennifer had started going out with the captain of the Extra 'B'; those bank balance jokes were wearing thin and a crucial viva had been failed. To crown it all Ian dreamt that the Professor of Anatomy was taking out Jennifer while he had had to mow the college hall lawns for a nurses' netball practice. Conscious as ever that chaps did not do this sort of thing, several decisions were made. “Trelawney” was put on the market once again; with regret Ian withdrew his help from the wardshow rehearsals and cancelled his place in the ski-ing party to Arosa. It was a black moment indeed for our hero as he sipped his light ale alone in a refreshment room on Victoria station before going home for Christmas.

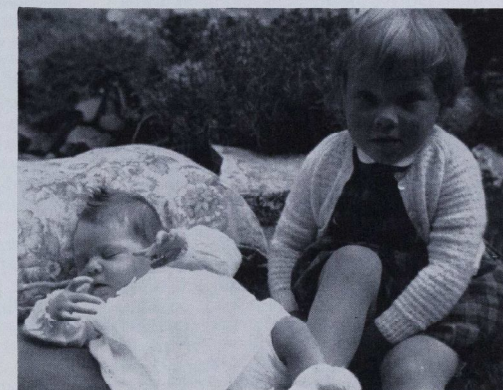
Control was Ian's word for his exam term. There were admittedly five blinding occasions terminating on the floor of the college hall sitting room, but his father's rather nettling speech before he came back did seem to have reduced the overall stupor. And did this matter when the happy result was announced? Ian liked to think that this was surely his greatest moment but to his disappointment he could remember very little about it. What a brick the pater had been to send that cheque, he mused as he left soon after for Majorca in a mini with three of his friends.

Ian felt ready for those bigger responsibilities as he crossed the square for the first time in his white coat; indeed he had just bought four of them from Rushbrooke's and he wondered whether there was anything to be said for a spare stethoscope. Surgical dressing was fun and the similarity of theatre uniform enabled him albeit unwittingly to date a staff nurse. Still under the influence of her title he took her to the View Day Ball. Our hero's first firm party made history by being probably the only one where alcohol was actually left undrunk at its conclusion. Ian himself undertook to organise the punch but as he was unconscious before the party started he never really appreciated quite what he had achieved.

Ian wasn't rowing this year; in fact he thought less about games now and was anxious that his capacity for administration should be tested further. He soon got the chance and was in charge of the suckling pigs for some hours while they were spitted for the Barbecue Ball; and had not the sexton mentioned that his name was being considered for the wine committee? Bolding's day was complete.

We take our leave of him down in Fred's where he is busy adjusting his tie, a white CH clearly visible on its blue background . . . resolutely he sticks a pipe into his mouth and walks out into the sun.

BART'S BABIES



James and Victoria Mulcahy

Medical Practice Abroad

It is hoped that this article will be the first of a new series written with the intention of indicating the type of reception that an English graduate may receive on setting up practice in different English-speaking countries around the world. The series will not attempt to cover the various financial or academic requirements that a graduate needs to attain before being permitted the right to practice. Rather it is the aim to describe the environment—social, cultural, and medical—in which the English graduate will make his life if he chooses to go abroad.

Toronto is essentially an American city. The difference between Toronto and any large city in New York State for example, is difficult for the immigrant to detect. This emphasis on American outlook may be disarming to anyone nurtured on the ideals and concept of Commonwealth. Only after a relatively long stay does the reality of the difference of opinion make itself felt. The war of 1812 is usually neglected in English schools due, no doubt, to the pressure of important events in the peninsula and on the Russian plains occurring the same year. For Toronto, the war was more than a passing affair. In 1813 the American fleet landed a sizeable force, overran Fort York and burnt the town, small though it was, to the ground. The settlers in this area remained ever vigilant to the possibility of fresh American encroachment for the next eighty years, and there is a mood of resentment when the identity of Canada is lost in the miasma of the United States. The present generation is no less anxious to hold its culture apart from the U.S. and to produce something recognizably Canadian. These efforts are sometimes misunderstood by recently arrived immigrants from Britain as being hostile to England; in fact, they are, no more than the signs of an emerging nationhood, much more familiar perhaps in the African than the American zone. These words of introduction to Toronto serve the purpose of preparing any doctor entering this zone for the re-adjustment which is necessary to make life happy and effective here. The

1. CANADA

by J. D. C., Medical Practitioner, Toronto

business of adjusting to a new country and a new life is not easy and seems to be more difficult for the wives, particularly those saddled with young children, than for the doctors themselves. Where a woman has had the opportunity of working and making friends for herself, her life within the community is bound to be that much happier. Too frequently the only women that she is likely to know are other English women in the same boat as herself; their meetings lead frequently to dissatisfaction and the unhappiness they cause unsettle the doctor before his adjustment is complete. I do not think that it is easy to get used to living in a country other than one's own after the age of thirty. There is too great a tendency to be forever looking back, albeit with rose-coloured spectacles, for the good things that one has enjoyed and now misses. In the course of time, fresh interests take the place of those important sporting or recreational aspects of life and the void seems to be filled. The time of adaptation varies with the individual, but took me approximately six or seven years. I must confess that during those early years, particularly the time I spent in the Prairie provinces, I was conscious of a sense of unreality with regard to everyday life, and felt events would only assume their true significance if I were to return again to the U.K. The feeling was not unlike that of a continued holiday, long after the need for a holiday and its novelty had disappeared. The fact that I was in the armed services and not properly engaged in medical work perhaps intensified that sensation.

Gathering from remarks made to me during my recent visit to England, I think that many English doctors would be surprised at what a large percentage of their practice has to do with English patients, English nurses and English doctors. Talking to Bart's men I did not feel that they realized the impact that immigration of English doctors has had on Canadian cities. I cannot quote the exact number of English doctors practising in Toronto, but it is an everyday affair to meet with one or another. By and large, I would

say that they are uniformly happy and I do not remember anyone deciding to give it up and return to England. It is sometimes thought that the North American doctor is unduly mercenary and that medical practice has become nothing more than another item of slick business. I think this attitude is grossly unfair to the majority of General Practitioners and Specialists. There is still evidence of tremendous dedication and interest in good medical practice. While it is true that remuneration and the dollar play a large part in practice, it does not mean that the standard of work is necessarily inferior. There are I suppose in every community doctors whose activities one regrets, and who sooner or later come to the public eye for malpractice that is roundly condemned. I would have thought that the challenge in General Practice was rather greater than in Great Britain. Judging from the letters in the B.M.J. one gathers that isolation from the hospital and the bedside is a very serious cause of unhappiness. The General Practitioner in Toronto still has access to his patients in hospital and does his own obstetrics within the hospital. No General Practitioner is permitted to perform surgery or give anaesthetics. The privileges accorded for tonsillectomy and adenoidectomy are limited to those that have shown proficiency in this regard.

We operate from rented office suites and the total expenses incurred per month average about 800 dollars. This includes office rental, equipment, telephone, answering service and receptionist. General Practitioners earn on average about 2,500 dollars a month. This leaves an income of approximately 20,000 dollars a year on which a man married with two children will pay approximately 5,000 dollars tax. The cost of housing is rather higher than in London, but judging from prices during my last visit, the difference appears to be growing smaller year by year. Household expenses, I would think correspond fairly accurately to those incurred in London. The cost of cars is roughly comparable, but their operation I would think is less expensive both in regard to petrol and insurance.

I do not think that there is any doubt but that most General Practitioners work extremely hard for the incomes they make. I do not think that they work as hard or are as relentlessly pushed as General Practitioners in England and certainly being self-employed, they are spurred on by the knowledge that what they make is to their own advantage. It is as well, however, to caution anyone thinking of coming to

Toronto that although incomes are more than adequate, the work expected of the average doctor involves long hours and conscientious effort. This is especially true of course in the early years and most men locally get started by taking on offices and house calls for doctors out of town on vacation or at weekends. Once practice is established it is possible for a newcomer to do the same.

From the recreational point of view there are ample opportunities for most sports-loving individuals to find what they want. We do not have first class cricket, however, and for those who enjoy Twickenham on a Saturday afternoon, Canadian rugby is a pale affair—being in essence very similar to American football. There is however, an active brand of English rugby played and a Canadian touring side visited the U.K. last winter with only moderate success, but carrying the usual bonhomie wherever it went. Surprisingly enough cricket is still played, the Toronto Cricket Club having no parallel in London as far as I know. The M.C.C. who toured last in 1959 were entranced with the new buildings. Included on the same site are tennis courts, swimming pool, squash courts, ice arena and sheets of ice for curling. This however is the only one of its kind. Most of the other areas where cricket is played are rather less elaborate to say the least. There is motor car racing, yachting, flying, ample opportunity for fishing and hunting, skiing, golf and skating.

With the introduction of a new theatre, the arts are well provided for and except for the most fastidious the plays and musical entertainment compare well with any of the provincial cities in the U.K.

In conclusion, a subject close to the Englishman's heart is the weather. We have harder winters on the average than Great Britain, although for two winters there is no doubt that the conditions in England were enough to terrify the average Torontonians. The facilities for coping with the winter are in evidence everywhere and no Englishman that I know has ever complained about the cold. The seasons are sharply drawn and the snow and ice of April disappear almost overnight to the radiance of sunfilled May days. There is no doubt that we have a great deal more sunlight than in London. This in itself is cheering and invigorating. The rainfall is approximately the same, but the absence of grey dreary days, particularly through the winter, makes life a lot easier, no matter how tough the going is at first.

Occlusion of the Popliteal Artery caused by a Foreign Body

by D. S. BROWNE

Segmental occlusion of the popliteal artery is usually the result of degenerative disease, and occurs most frequently in the fifth and later decades. In probably 85% of recorded cases (Mavor, 1956), the artery is occluded at the site of the adductor opening, where the artery passes through the adductor magnus muscle. In 11% of cases the artery is occluded in its distal two thirds (Mavor, 1956). The following case concerns a patient whose popliteal artery was occluded distal to the adductor opening, yet without sign of atheromatous degeneration.

CASE REPORT

H.L., a lorry driver, aged 37, was admitted to St. Bartholomew's Hospital in October 1964 from Whipps Cross Hospital. He complained of pain in the right calf while walking and constant pain in the great toe and in the middle toe.

For eight weeks he had experienced pain of gradual onset in the right calf after he had walked a distance of some two hundred yards. This pain was relieved by rest and was typical of intermittent claudication. Shortly afterwards the great toe became cyanosed and his claudication distance was reduced to fifty yards. Two weeks before admission he could walk only twenty yards, and a constant "gnawing" pain in the right foot kept him awake at night; this was not relieved by hanging the leg over the edge of the bed.

He had no symptoms referable to the heart, lungs or abdomen. For many years, and until four years before admission, he had smoked 60 cigarettes a day, but a year later he had completely stopped smoking. In 1949, the left saphenous vein had been stripped and tied. There was no relevant past history.

On examination: The patient was a fit, heavily built man. Apart from the signs of vascular insufficiency in the right leg, no abnormal

signs were demonstrated. Both legs were well nourished, the hair was of normal distribution and growth, no ulcers were present and there was no visible sign of external trauma. The left leg was warmer than the right and the right hallux and middle toe were tender and cyanosed. There was no evidence of gangrene. Neither the popliteal nor the pedal pulses could be felt in the right leg which showed marked postural colour changes and venous guttering on elevation.

Investigations: Hb. 98%, W.B.C. 5,000/cu. mm., Platelets 160,000/cu. mm., W.R. negative, E.S.R. 5 mms. in the first hour (Westergren), Blood urea 49 mg./100 ml., Serum proteins 6.9 mg./100 ml., with a normal electrophoretic pattern, E.C.G. was of normal pattern.

Arteriogram: Right femoral arteriography showed a patent femoral artery and a patent popliteal artery in the proximal and distal thirds, but a block, 1 cm. in length, was seen in the artery in the region of the femoral condyles (Fig. 1). Both anterior and posterior tibial arteries appeared patent. A diagnosis of popliteal thrombosis was made, aetiology unknown.

Because of the severe degree of ischaemia and rest pain it was decided to explore the popliteal artery.

Operation: A vertical incision, 15 cms. in length, was made exposing the popliteal fossa. The popliteal artery was found to be pulsatile in its proximal third, the pulsation ceased abruptly at the junction of the middle and upper thirds to reappear as a feeble pulse in its distal third. At the site of the occlusion the vessel was densely adherent to the surrounding tissues.

The circulation in the collateral arterial vessels was temporarily controlled by means

of thread slings. After 10,000 units of heparin had been injected intravenously, the blocked segment of the popliteal artery was disobliterated using an endarterectomy instrument. A 4 cm. long segment of the saphenous vein was excised, reversed and sutured, with 6/0 silk, to the arteriotomy defect in the popliteal artery. The incision was closed in layers and a suction drain was inserted.

Post-operative progress was uneventful. Both legs were warm and of a good colour, and all pulses were present in the right leg. The middle toe regained its normal colour within 24 hours, but the hallux remained cyanosed for several days.

Histo-pathology: The tissue removed by the endarterectomy instrument was fusiform in shape and pinkish in colour. After fixation it was found to be composed entirely of organising thrombus. At one side a fragment of media had been included with the internal elastic lamina; however no evidence of atheroma was seen. At one point in the deeper part of the specimen a small foreign body was present; it was surrounded by a zone of macrophages and when examined under the polarising



FIG. 1.—Right femoral arteriogram showing a block in the popliteal artery.

microscope, was doubly refractile (Fig. 2). The foreign body presented no characteristics by which it could be identified. It was too small for radioscopical and crystallographic examination, and only appeared in four sections. As a result of the cellular reaction it was considered that the foreign body might be a factor determining the occurrence of thrombosis in the vessel.

Further investigations: On questioning the patient further about his previous employment, he revealed that in January-May 1963, he had shovelled broken car windscreen glass. At night his wife often used to remove small splinters of glass from his trousers and legs.

Small pieces of broken glass were examined with the polarising microscope in the Pathology Department where it was found that very small fragments of windscreen glass are doubly refractile whereas large pieces are not. This is thought to be due to the fact that glass has not an ordered molecular structure. Other substances were examined under the polarising microscope—hair gave a spectrum of colour, mucin was not doubly refractile.

Follow-up: H.L. was seen in the follow-up clinic six weeks after his discharge from the hospital and the vascular condition of his right leg appeared normal. Neither the great toe nor the middle toe were cyanosed; the pedal, popliteal and femoral pulses were palpable. The patient had resumed his employment as a lorry driver and was not experiencing any cramp-like pains in his calf after walking long distances.

DISCUSSION

Popliteal artery occlusion is generally the result of degenerative disease or trauma, the patient presenting with intermittent claudication. Several factors must be considered in the aetiology of thrombosis with a typical histological and radiographical appearance, in a young man.

Spontaneous thrombosis of the popliteal artery may occur with no apparent reason. Learmonth, Richards and Blackwood (1944) have suggested that this may be due to the unusual amount of flexion and stretch of the artery as it crosses the knee joint. Mavor (1952) considers that posterior dislocation of the knee joint is a common cause of popliteal artery thrombosis. There was no history of this in H.L.

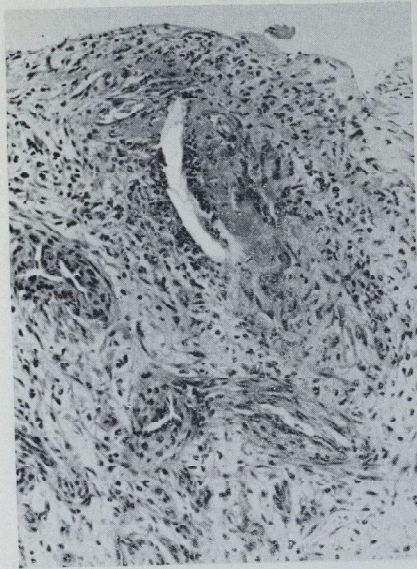


FIG. 2.—Photomicrograph of the thrombus using the polarising microscope to show the doubly refractile foreign body.

The normal E.S.R., W.B.C., and protein electrophoretic pattern does not lend support to an infective or collagenous disease process.

There was no evidence of thromboangiitis obliterans (Buerger's disease), spontaneous localised monarteritis (Leriche and Stricker, 1933), periarteritis nodosa (Mavor, 1955) or giant cell arteritis (Robinson and Finlayson).

The site and shape of the obliterated segment as seen on the arteriogram suggested a cyst in the popliteal artery. Atkins and Key (1946) first described a myxomatous change in the adventitial coat of the external iliac artery. Several cases of myxomatous degeneration of the adventitial coat of the popliteal artery have since been described (Ejrup and Hierton, 1954; Hierton, Lindberg and Rob, 1956; Holmes, 1960 and Rob, 1960). In each case the patient was a young man in the third or fourth decade who presented with intermittent claudication. His work involved heavy use of the lower limbs and his symptoms were occasionally more pronounced when the leg was hyper-extended (Ishikawa, Mishima and Kobayashi, 1961). Histology of the vessel showed no evidence of inflammation or

atherosclerosis in the arterial wall, but a cyst, composed of gelatinous material under high tension, which had the appearance of mucin (Hierton, Lindberg and Rob, 1956).

H.L. presented with intermittent claudication; the calf pains which were initially relieved by rest, later however became continuous throughout the day and night. These pains were not relieved by hanging the leg over the side of the bed which usually relieves the ischaemic pain of atheroma involving the main peripheral arteries or smaller vessels. The rest pain was therefore indicative of advanced ischaemia. The cyanosis of the great and middle toes was thought to be due either to the release of micro-emboli from the thrombus or from vascular insufficiency as a result of the decreased volume of blood reaching the digital vessels.

The migration of foreign material in the body is well documented, though no case of popliteal artery occlusion caused by a piece of glass has been found in the literature. Glass, however, is known to promote clot formation but the actual mechanism is obscure. It is thought that glass may cause platelet disintegration. This process may have contributed to the thrombosis in H.L.'s popliteal artery.

Barnett (1950), who reviewed the literature of foreign bodies in the cardiovascular system, quoted an example of the migration of a swallowed pin which had perforated the appendix and later ulcerated through to the aorta and resulted in a fatal aneurysm. Small foreign bodies may act as emboli and pass to the heart, cerebral or peripheral vessels (Barnett, 1950). There was no history of swallowing glass or sign of external trauma to mark the site of entry of a glass foreign body in H.L.'s legs. At operation, however, the artery was found to be densely adherent to the surrounding tissues which could have been the result of an inflammatory response from the migration of a glass splinter through the tissues. Foreign bodies may occlude vessels by contusion or spasm without coming into direct contact with them (Brown, 1947). Hair, although doubly refractile, was not considered to be the cause of the popliteal artery occlusion.

SUMMARY

A case is reported of a 37-year-old man who presented with an eight week history of intermittent claudication and rest pain in the right leg. Femoral arteriography showed a short block in the popliteal artery. This was removed by operation. Histology of the specimen showed

a thrombus containing a doubly refractile body, which was thought could be glass. The patient had shovelled broken glass under employment. Small pieces of glass are doubly refractile. The clinical and pathological evidence suggests that a small glass splinter migrated through to the arterial wall and initiated the formation of a thrombus which resulted in vascular insufficiency of the right leg.

Acknowledgements: I am indebted to Prof. G. W. Taylor and Mr. B. N. Catchpole for their advice and encouragement and for permission to publish this case; to Dr. Stansfield for the use of Histological sections; to Mr. Crocker and the Department of Medical Photography for the photomicrographs.

REFERENCES

- ATKINS, and KEY (1947): Myxomatous Tumour arising in the Adventitia of the Left Iliac Artery, *Brit. J. Surg.*, **34**, 426.
 BARNETT, H. R. (1950): Foreign Bodies in the Cardiovascular System, *Brit. J. Surg.*, **47**, 416.



"IN SPITE OF WHAT WAS SAID IN THE JOURNAL ABOUT THE MODERNISATION OF NURSES UNIFORMS, I DON'T THINK THAT YOU CAN RELY ON MATRON'S UNQUALIFIED APPROVAL"

- BROWN, J., MASON: War injuries of Popliteal Arteries, *Brit. J. Surg. War Surgery Supplement*.
 EJRP, and HIERTON (1954): Intermittent Claudication; Three Cases treated with a Free Vein Graft, *Acta Chir. Scand.*, **108**, 217.
 HIERTON, LINDBERG, and ROB (1956): Cystic Degeneration of the Popliteal Artery, *Brit. J. Surg.*, **44**, 348.
 HOLMES, J. G. (1960): Cystic Adventitial Degeneration of the Popliteal Artery, *J.A.M.A.*, **173**, 654.
 ISHIKAWA, MISHIMA, and KOBAYASHI (1961): Cystic Degeneration of the Popliteal Artery, *Angiology*, **12**, 357.
 LEARMONTH, BLACKWOOD, and RICHARDS (1944): *Edin. Med. J.*, **51**, 1.
 LERICHE, and STRICKER (1933): L'arctomie dans les artères oblitérantes, Paris Masson.
 MAVOR, G. E. (1952): Ch.M. Thesis, Aberdeen University.
 MAVOR, G. E. (1955): *Quart. J. Med.*, **24**, 229.
 MAVOR, G. E. (1956): The Pattern of Occlusion in Atheroma of Lower Limb Arteries, *Brit. J. Surg.*, **43**, 352.
 ROB, D. (1960): Obstruction of Popliteal Artery by Synovial Cyst, *Brit. J. Surg.*, **48**, 221.
 ROBINSON, J. O., and FINLAYSON, R. (1955): Giant Cell Arteritis of the Leg, *Brit. J. Surg.*, **34**, 476.



Penguin Reviews



THE NAIVE JOURNALIST

Trial by Terror, by Paul Gallico. 3s. 6d.

Paul Gallico is mainly known for his fantasies. "Trial by Terror" is a departure into the world of journalism and the cold war. In spite of these subjects, he retains the same almost naive, yet attractive relationships between his characters. They are very sensitive, occasionally so much so that their reactions and inferences tend to detract from the story itself. This involves Jim Race, a dynamic, headstrong young American, who joins the staff of the Paris edition of the "Chicago Sentinel". His enthusiasm for action over the imprisonment of an American citizen in Budapest results in his arriving in a similar predicament himself. He is subjected to a team of psychiatrists and neurologists who are engaged in studying means of destroying the healthy mind. A detailed description of the subtleties involved leads on to his absolution on confessing espionage and to the betrayal of his friends. Interspersed with this run the relationships between Jim, his editor's wife and Janet—the key to the climax of the story.

Mr. Gallico has shown himself to be a master of creative simplicity in "The Snowgoose" and "Thomasina"; "Trial by Terror", although very competent and unusual, is not as memorable.

Martin Brueton.

WILL DISORIENTATED

Shakespeare's Problem Plays, by E. M. W. Tillyard. Penguin Book. 7s. 6d.

When Polonius classified plays as "tragedy, comedy, history, pastoral, pastoral-comical, historical-pastoral, tragical-historical, tragical-comical-historical-pastoral", he omitted one element that is present in all drama and tends to be the dominant one in times of disorientation: the problematic element. Our own age is

such a time and Antonioni, Sartre, Graham Greene etc. explore the problems involved in their beliefs, leaving others (Bunuel, Brecht, Chesterton, etc., less complete artists in my opinion) to defend these beliefs. Shakespeare himself, between writing the comedies and the tragedies, went through such a period of doubt. Goodness knows how Polonius would have classified "Hamlet" (1601), "Troilus and Cressida" (1602), "All's Well That Ends Well" (1603), and "Measure for Measure" (1604)—as his speech implies, all classification is a bit ridiculous—but certainly it is convenient to discuss these four together.

Dr. Tillyard was in the great tradition of literary dons, the wise and gentle tradition of Quiller-Couch and Raleigh and Gordon, of C. S. Lewis and David Cecil. How pleasant is the range and subtlety of his emotional response to the plays, and his courtesy towards the reader and towards other critics, after the crabbed journalese of the theatre critics and all that rancour from Downing. "Shakespeare's Problem Plays" consists of an essay on each of the four, together with an introduction (pointing out some of the similarities between them) and an introduction (discussing how they fit into the development of Shakespeare as a dramatist).

The weakest essay in the book is that on "Hamlet". It exemplifies Tillyard's tendency (shown far more damagingly in his work on Milton) to argue ineffectually. For example, supporting his definition of tragedy as having to do with "a change in the mind of the hero . . . enlightenment has dawned", he conveniently forgets about Macbeth's progression into darkness. Again: "in at least three of the plays, the business that most promotes this process of growth is transacted at night. There are so many night-scenes in Shakespeare that such an observation may amount to very little." It does not seem to have occurred to him that he could have settled this one way or the other

simply by counting. He belonged to a pre-statistical age.

The longest and best essay is that on "Troilus and Cressida". The fall of Troy (like that of Jerusalem, Constantinople, Hiroshima) is one of the hinges of history and writers of all ages have tried their hand at it. It is Tillyard's achievement to show that, when Shakespeare did so, the result was, contrary to the common opinion, worthy of him.

The other two essays are on a smaller scale, but there could be no better aperitif to seeing either of these plays. In the essay on "All's Well", Tillyard solves one of those problems that has bothered critics since Aristotle: since detective novels have as good plots as Shakespeare, how can plotting be a function of genius? Here is Tillyard's answer:

The virtue of the plot only begins when other qualities are already there . . . Easy though it is for a cool self-possessed mind to plot ingeniously, it becomes a matter of greater difficulty and greater importance when the imagination grows hot. The cool brain has no temptations not to plot well, but without these temptations plotting well amounts to nothing.

Also in this essay, one finds this interesting remark: "Who of its judges have seen it acted? Not I, at any rate." At first this seems a dreadful confession of academicism, but then one realizes it was written in 1950: that the successful productions of "All's Well" have been since then and that this revival has been partly due to Tillyard's essay. So the dons are necessary for those who stage Shakespeare as well as for those who read him. The Grove of Academe is thus doubly justified; the circulating port has not been wasted.

Jeremy Davies.

MAUDIE RIDES AGAIN

The Penguin Osbert Lancaster. 5s.

The first sixty pages consists of a selection of cartoons which have appeared in the *Daily Express* since Osbert Lancaster was appointed their cartoonist in 1939. My first thoughts on being given this book to review were "Who on earth would want to waste 5s. on a book of cartoons?"; but this book would never be a waste of anybody's money; it is a collection of great comments by a man with a sincere sense of humour. They often tilt sympathetically at the "upper classes" in the style of Nancy Mitford. The only other book of cartoons I possess is William Rushton's "Dirty Book", and there is no doubt in my mind that Lancaster is a far better cartoonist.

Most of the rest of *The Penguin Osbert Lancaster* is a unique tour of English architectural development. On the left hand side of each double page are a couple of columns of characteristic Lancaster comment, critical and almost cynical, of each stage in progression from the earliest dwelling to the present architectural extravaganza. Facing the writing are meticulous drawings of Osbert Lancaster's impressions of the various styles. Many of his remarks and quotations will be forever topical; talking about the age of "Classic Revival" he says, "Now the brothers Adam (incidentally far better decorators than architects) established it firmly on that smart and fashionable plane on which today so many bright young men and shrewd old women so profitably operate." He begins his piece on working class dwellings of the industrial revolution by quoting Swift: "On earth the God of Wealth was made sole patron of the building Trade".

The third section of the book consists of a few full page cartoons from sources other than the *Daily Express*.

The publication of this Penguin will ensure that the delightful vagaries of Maudie Littlehampton and her ineffective Earl will not be lost for future generations.

Bill Castleden.

NO STRINGS ATTACHED

The Absence of a Cello, by Ira Wallach. Penguin Novel. 4s. 0d.

Ira Wallach's new book is an entertainment. The situation for his "Murdochian" characterisations is present day America, the theme a man's disillusionment.

With his recent research project a failure, Andrew Pilgrim, a physicist, attempts the entry to the world of "Mass Media". The Corporation to which he applies believes in personal interviews conducted in the home of the applicant. This necessitates a rapid restyling of Andrew's image by his family and friends. They conceal a cello and other evidence of his unsuitable emotional outlet and groom him for the deception.

This is essentially a human satire. Application of precise and amusing metaphors to the situation and its repercussions serve to crystallise the personalities of the persons involved. In this respect the book is an outstanding success.

However the very method of its attainment relegates its value. The main situation is an interesting moral dilemma and with such a clear

presentation it is difficult not to search for and expect stimulating comment on it. The associated deceivers who might have given this are not made to do so and instead, one has to rely on the dissertations of the Corporation's interviewer, whose views I was not inclined to accept. Succeeding events, especially a prominent seduction, are obscure but anyway I had given

MEDICAL BOOKS

Anatomy

Visual Principles of Elementary Human Anatomy.

Charles E. Tabin and Peter Ng. Published by P. A. Davis Company, Philadelphia. Price 20s.

This short book presents, in just over one hundred pages, the basic principles of gross human anatomy in a simplified form. The approach is almost entirely visual—the drawings of the anatomical structures are accompanied by sketches of mechanical devices with which they are broadly comparable. For example the tongue is shown compared with a bulldozer, the eye with a camera and the large intestine with a wringer! There is a short accompanying text on each page which is concise and offers useful information.

It is claimed that this book is designed to help those "from the level of the beginning science student to the specialist in some branch of medical science". It is difficult to see how any scientific book of this nature could serve such a wide field, especially when it is termed "elementary", and it certainly fails in this claim. Most of the drawings are oversimplified to the point of inaccuracy thus making them misleading, and the inclusion of the "cartoons" serves only to distract and is usually inappropriate. This book would be a good introduction to the 1st M.B. course but there its usefulness ends. It might also be of value to the nurse in the early part of her training.

David Booth.

The Cranial Nerves: Anatomy and Anatomico-clinical Correlations, by Alf Brodal, M.D. Blackwell Scientific Publications Ltd. Price 15s.

This is the second edition of a paper back of 142 pages by the Professor of Anatomy at Oslo University. It begins with a discussion of the anatomy and function of the cranial nerves in general and then proceeds to discuss each cranial nerve in turn, starting "for didactic reasons" with the hypoglossal nerve. For those whose interest begins to wane at or about the glossopharyngeal in the usual descriptions of the cranial nerves, this text will be useful.

The discussion on each cranial nerve opens with a description of the central connexions and the peripheral course of the nerve. This occupies the greater part of the text. There then follows a description of the function of the nerve and some remarks about the clinical aspects. Those involved in clinical work or study may find the discussion of the clinical aspects very brief, but in his preface Prof. Brodal has made it clear that he has no intention of producing a text of clinical neurology. He believes that a sound knowledge of anatomy and

up by this time and instead enjoyed wallowing in a wealth of metaphorical barbs.

Alas, yet another example of T.V. literature, all the more annoying because it shows signs of breaking out. A lot of good writing will be wasted when they make the "Film of the Book".

Paul Harker.

function will enable the clinician to deduce the site of the lesion. This is a useful reference book but at fifteen shillings for a production of average quality it is a rather expensive and limited pocket book for the student.

M. A. Hession.

Biochemistry

Biochemistry, by S. P. Datta and J. H. Ottaway. Pp. 379. Baillière, Tindall and Cassell. 1965. Price 21s.

This book is a successor to "Aids in Biochemistry" written by the same authors, but if this was not made clear in the preface, few would appreciate the fact because the whole presentation and binding of the book has been changed and considerably improved. It is now a small textbook in its own right.

There are 19 chapters in all, which cover most of the aspects of biochemistry with which medical students are expected to be familiar. The authors have taken pains to present modern knowledge and to explain in some detail certain facets of the subject, such as the isomerism of steroids and the ionisation of amino acids, which often present difficulty to students. Also worthy of special mention are excellent short chapters on the chemistry of blood and on control mechanisms. In this latter chapter efforts are made to present an integrated concept of the control of metabolism, so that hormonal control is considered with other forms of metabolic control which are now coming into prominence, such as negative feedback.

One surprising feature is, in a book of this size, the inclusion of a relatively long chapter on Practical Techniques. Surely much of this material is better explained and absorbed in the practical classes and is superfluous in a theoretical textbook, unless it is expected that students will not be able to attend a laboratory.

The authors state that they feel it is their "duty to teach the amount and kind of biochemistry which will be useful in the last third of the twentieth century." Judged by certain aspects of this book I have some reservations about the achievement of their aim, for it seems to me that mechanistic chemistry figures far too prominently in certain sections of the book primarily written for medical students. For example, is it really necessary to devote 2 whole pages to explain the precise mechanism of action of thiamine pyrophosphate and lipoic acid in oxidative decarboxylation? I feel that in present day teaching of biochemistry to medical students far more attention should be devoted to the integration of biochemistry with physiology rather than to attempts to juggle with academic biochemical exercises for their own sake.

Nevertheless, these expressions of opinion about the place of Biochemistry in the medical curriculum should not detract from the value of the book as a whole and there is no doubt that all medical students will find that it will be a very useful aid to their understanding of the 2nd M.B. Biochemistry. The book is very reasonably priced at 21s. and all students who are trying to achieve a pass in 2nd M.B. Biochemistry, or even those who passed this examination some years ago but who wish to bring their knowledge up to date at a minimum cost, are advised to purchase it.

E. D. Wills.

The Biochemical Approach to Life, by F. R. Jevons. Pp. 184. George Allen and Unwin. 1964. Price 28s.

This little book, as its title implies, is designed to introduce Biochemistry to those who have no previous knowledge of the subject. It is, however, not written for the layman and a full understanding of the whole contents probably requires a reasonable knowledge of "A" level chemistry. The book is not, by any means, a comprehensive text book and many large areas of Biochemistry are not covered.

Despite this lack of coverage the style of the book is very attractive, and apart from a few sections, e.g. those on glycolysis and on the citric acid cycle, it may be read rapidly and easily, almost as a novel. Most topics are introduced from an interesting historical background.

One significant aspect of the book is the author's attempt to explain, in some detail, exactly how biochemical theory is established in the laboratory and he goes to some pains to describe the two basic lines of experimental approach in Biochemistry—analogy and analysis. In another interesting chapter he describes the biochemical mode of action of drugs and how new drugs may be designed.

Definition of the precise role that this book should play in the medical curriculum is not easy. It could serve a very useful purpose in introducing the subject to those about to start Biochemistry but it may be more helpful to those who, about half way through their course, find Biochemistry somewhat bewildering. Many students, it is to be hoped, will read the book and find that the author's enthusiasm for Biochemistry is infectious.

E. D. Wills.

Hospital Administration

A Guide for the Medical Secretary, by H. E. M. Welch, S.R.N., S.C.M. William Heinemann Medical Books Ltd. Price 7s. 6d.

What a good idea to write a handbook for Medical Secretaries explaining the structure of the National Health Service, giving practical information 'which colleagues are often too busy to pass on,' and recommending books and other sources from which further help can be obtained.

This book contains an immense amount of information and has a comprehensive index which will permit the reader to find quickly any particular section required, but it is spoilt by being written in a poor literary style and is often rather confusing. The first five chapters describe the attributes of the good medical secretary and the basic principles of her work, going on to give details of the various sections of the Health Service with which she will come into contact and explaining the background to the patient's treatment both at home and in hospital. This section

is more suitable for the would-be rather than the established secretary, and after reading the book the girl who had thought of the medical secretary's life as a glamorous one would certainly be deterred, but the dedicated would look forward to a worthwhile job. The final four chapters and the appendix are more technical in content and therefore of interest to the established secretary. They deal with the handling of drugs and the preparation and sterilising of instruments and other equipment, and also explain methods of obtaining information from published literature and preparing material for publication. This section is much too condensed and could usefully have been dealt with in more detail.

The secretary to a general practitioner and the consultant's private secretary might well find this a useful reference book, but to the hospital medical secretary it would be of only passing interest.

D. A. Ross.

Medicine

A Synopsis of Fevers and Their Treatment, revised by James H. Lawson, M.D., D.P.H.; Lloyd-Luke Ltd; Price 15s.

The writing of a "synopsis" must always be peculiarly difficult. Whilst in a book of this kind it is perhaps reasonable to omit such infections as leptospirosis and brucellosis it seems a pity that the common illness of herpes simplex, roseola infantum and many viral respiratory disease receive no mention. There is a good general introductory chapter and the factual information throughout is accurate apart from an over optimistic claim for Marboran as an alternative to vaccination. No mention is made of malignant smallpox—an omission which could have serious consequences as this type is so difficult clinically from the better known benign variety. The book will no doubt retain its popularity among students because of its clear presentation, readability, low price and brevity.

G. D. W. McKendrick.

Bedside Diagnosis, Charles Seward, M.D., F.R.C.P. (Edin.), Pp. 568. E. & S. Livingstone Ltd. 1965. Price 35s.

The teaching of medicine consists largely of descriptions of diseases; diagnosis then depends upon the recognition of a pattern in symptoms and signs which can be identified and labelled. Such an approach is intuitive and may lead to error because of a failure to consider other likely possibilities. The present book sets out to teach a more rational method of diagnosis. The author does not group diseases by aetiology or by system. Instead, common presenting symptoms are considered in turn, and for each the more important causes are classified on an anatomical basis and described with due consideration for the physiological mechanisms involved. The classifications are simple and can easily be learned; but committing them to memory is less important than accepting the habit of this systematic approach.

The book is claimed with justification to form a link between the formal text book and the bedside. It is, however, not only a link but also itself a synopsis of medicine: the important and common diseases are described in some detail, each under the heading of its most prominent symptom. This is not a method which lends itself to a tidy classification of diseases. It is clear that some are included because of their general importance and not because

they are prominent causes of any particular symptom: for example, hypertension is a rare cause of headache but five of the 25 pages on head pain are devoted to it. Furthermore, the interpolation of descriptions of diseases seems sometimes to break the continuity of the text so that the method of classification loses its clarity.

These are only minor criticisms of a useful, concise and well written book. The chapters on pyrexia and on drugs as causes of symptoms are particularly valuable because of the scanty treatment these topics receive in most standard text books of medicine.

D. A. Chamberlain.

Reports, Vol. 32, 1963-64, of Royal National Hospital for Rheumatic Diseases, Bath. Lloyd-Luke (Medical Books) Ltd. Price 20s.

Dr. G. D. Kersley, who qualified from Bart's in 1931, is Chairman of the Medical Board, the Royal National Hospital for Rheumatic Diseases, and is to be congratulated on bringing out another volume of articles contributed by him and other members of the staff of the hospital and thus giving a good indication of work going on there. A foreword by him about the hospital and its aim makes interesting reading.

The papers, starting with a brief biography of Lord Horder, include an excellent study on the value of tomography of small joints, a fascinating account of mixed rheumatic syndromes—dermatomyositis complicating systemic lupus and so forth—and papers on the treatment of arthritis with special reference to drugs. Finally, there are 2 articles on enzyme studies in rheumatoid tissue and experimental granulomata.

H. Wykeham Balme.

Pharmacology

Clinical Pharmacology (Dilling), by Stanley Alstead and J. Gordon MacArthur. Twenty-first Edition. Pp. 741. Ballière, Tindall & Cassell, London, 1965. Price 35s.

New editions of text books of clinical pharmacology and therapeutics frequently appear, but their useful lives are short owing to the rapid advancement of the subject. This book is the latest edition of a standard text book from the Glasgow School of Therapeutics and Materia Medica and can be recommended as a reference work for the student approaching finals, as well as the emerging houseman. The information provided is accurate and authoritative. The text is divided, principally, into descriptions of drug actions on particular systems. However, large drug groups such as antibiotics, immunising agents, radioactive isotopes and anti-neoplastic chemotherapeutic agents are dealt with on their own, where they do not fit conveniently into the systemic classification. Useful and brief lists of the relevant preparations, with doses, are given at the end of each section. A particularly interesting new chapter is included on the relation between chemical structure and pharmacological activity.

This book is a very good source of information but it is bound to be inadequate within one or two years. Surely the time has come to produce text books of therapeutics in a cheap disposable form, so that they can be brought up to date and renewed every two years or so? Paper backs would be ideal. The student is unlikely to want to lay out the price

of this expensively bound book, and throw it out in two years time. He would however be well advised to borrow it from a library if he wants to know about therapeutics in 1965.

G. M. Besser.

Surgery

Lecture Notes on General Surgery, H. Ellis and R. Y. Calne. Blackwells. Price 42s.

The initial impression on glancing through this book was not very favourable, but a more detailed study was more rewarding. The book is based on the authors' lecture notes from their own final year teaching, which are written to classify and rationalise the fundamentals of general surgery in easily assimilated form. As clearly stated in the introduction the book is not meant as a substitute for the larger standard textbooks of surgery.

The information is presented in a logical and easily read and understood manner, much of it tabulated. Each surgical topic is analysed under the main headings of aetiology and pathology, clinical features and treatment. Although inevitably somewhat dogmatic, most of the salient facts relevant to the subject are concisely laid out. The illustrative line drawings are informative, clear and to the point. For these reasons, if used intelligently, the book has a useful place in the revision of the fundamentals of surgery.

The main defect in the text, is in the treatment sections. The authors have limited themselves to setting out the principles of treatment only, and for details of surgical treatment the reader will have to refer to a larger textbook. From the point of view of the revision student this omission is important and it would be unwise to rely on this book entirely for surgical revision.

At a price of two guineas, I doubt if most readers will consider its usefulness sufficient to warrant purchase.

R. L. Rothwell-Jackson.

A Short Textbook of Surgery, by Sir Charles Illingworth. Eighth Edition. Pp. 540. J. & A. Churchill Ltd., London. Price 65s.

A textbook of surgery which has run into eight editions commands searching analysis for its success. There are two features which immediately recommend themselves in this textbook: its brevity, and its production.

The former it achieves, in rigid contrast with other textbooks of surgery, by concentrating mainly on clinical features and excluding much reference to pathology or applied anatomy. This is a great advantage for those first coming to grips with the subject of surgery who often become frustrated or even defeated by the duplications of books purporting to deal with different aspects of a disease. As might be expected from the pen of a great teacher, the text is lucid and to the point.

The production of this book makes it a pleasure to turn its pages. The type is clear, and there are no gimmicks. What one might take issue with is the choice of illustrations. Some of them are uninformative, some of them appear to have been chosen for no very clear reason, and when space is so very much at a premium, choice and excellence become of prime importance.

Nevertheless, this is a good book which the undergraduate will value for purposes of introduction or revision.

F. E. Weale.

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SPORTS NEWS

Editorial

What are England's chances of regaining the 'Ashes' on Australian soil this winter? In view of the more recent matches played against Australia and England's past record in Australia, most people would agree that any such hopes are slender.

This season the selectors have shown a commendable and logical approach to their task and have displayed a refreshing attitude in condoning dull negative cricket. Amongst the 16 players selected for the tour there are few surprises and yet there is an obvious lack of sparkle about the side. The batting, if not brilliant, looks workmanlike while the bowling is somewhat suspect and unbalanced. The batsmen mostly picked themselves but their ranks sadly miss someone of Dexter's class and aggression. Tom Graveney must be very unlucky to have been again overlooked, for on his county form alone during the last few seasons with Worcestershire, he has shown what a reliable and aggressive player he is. Too many times in the past a potentially strong batting side has crumbled apart on easy paced wickets by following a rigid defensive policy. No better example was seen of this than in the Second Test Match at Lords against South Africa when the England batting became becalmed and hesitant having been set a reasonable target

SWIMMING CLUB

On Thursday July 22nd. Bart's were hosts to the **Portsmouth Command Swimming Club**. Before the match started we were rather worried as to whether our already depleted numbers would be reduced even further by the non-arrival of Hanley and Lask, who were doing House Jobs at the Norfolk and Norwich Hospital. But at the eleventh hour they turned up muttering something about an aphid blocking up the fuel jets! The swimming started with

TENNIS CLUB

This month brings to an end our fixtures for the season, although there are still doubles and singles competitions to be played.

Although only reaching the semi-finals of the United Hospitals Cup, the overall results of the season have been most encouraging. The 1st team has won 11 of 12 friendly matches,

in their second innings. In this and so many other instances a bolder and a more aggressive policy would have reaped immediate reward.

The bowlers have got a tremendous task on their hands and must be prepared to maintain long spells of accurate bowling if they are to achieve success. In this respect Jeff Jones, the young Glamorgan left arm bowler, is well suited for he has a refreshingly economical and easy style, while on the other hand Larter is very suspect. In Titmus and Allen we have two of the best off-spin bowlers in the world at the present time. However, with only Barber as a serious change bowler the attack is sadly lacking in variety. In this department another specialist all-rounder would have been welcome.

The selectors have taken the unprecedented step of giving Billy Griffiths, the team manager, the responsibility of determining tactics. It is hoped that with this in mind England will pursue a brighter and more attacking approach to the game. This is particularly vital if the Australian public are to be attracted to their games, for at the moment English cricket is not held in very high esteem in Australia. England must raise their standards to a new level, for if they continue as they have done so often in the past the 'Ashes' will be lost and buried for good.

a 100 yards breast stroke, won by Garson, then a 100 yards freestyle, and finally two relays which gave them the lead in the match. The Polo was also won by Portsmouth, but the game was very even until half way through the second quarter, when our lack of training and the fact that we could not draw on any reserves showed, and they went on to win 10-2. Those taking part were:— Hanley, Lask, Blackburne, Quinn, Garson, and Rouss.

whilst the 2nd team have won all their seven. Consequently, we feel justified in attempting to strengthen our fixture list next season.

Wednesday, August 4th, v. West Heath.
W 6½-2½.

This match was scheduled to start at 5.30 p.m. It was, however, delayed by the late

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arrival of P. Mitchener and so the closing sets of the match were played in almost complete darkness. Though obviously exhausted by his hour and a half's search for the Club around the streets of Hampstead, he combined effectively with Mike Spencer as our 2nd couple to beat the opposition 1st pair. These two drew their other two rubbers one set all.

Our 1st pair of Edelsten and Fryer were initially uninspired, and against the West Heath 1st pair only drew one set all. They gradually improved, however, to beat West Heath's 2nd and 3rd pairs.

The 3rd pair of Wenger and Roche-Berry, played well to win one, draw one and lose one.

RIFLE CLUB

This year has seen the most active and successful season enjoyed by the rifle club on the full-bore ranges, for several years. As early as February, enthusiasts braved the icy-winds and closed club-house bars of Bisley, practising for the approaching season.

Practice scores were good, and we entered the **Pafford Inter-Collegiate Cup** with hopes high. A tricky wind however resulted in generally low scores amongst our relatively

Wednesday, August 18th, v. London Hospital.
A. W 6-3.

This was a re-arranged match which should have been played at the beginning of the season.

All our three couples beat the London Hospital 2nd and 3rd pairs, but lost to their 1st pair.

Our 3rd pair of J. Wenger and M. Spencer, although only recently gaining places in the 1st team, played extremely well to win their two rubbers. It would appear that we have at last found a steady 3rd pair!

Team: M. E. Fryer, M. Setchell, C. Garrard, N. Ireland, M. Spencer, J. Wenger.

M.E.F.

inexperienced team members, and we were finally placed 4th and 9th with our 'A' and 'B' teams respectively. A splendid 49 (ex 50) by John Turner secured him the range prize for 500 yards.

A large Bart's contingent entered the **University Individual Championship at Bisley** on May 18th. The morning shoot of 200 yards yielded excellent scores, Dick Thompson and Peter Tatham scoring 34 (ex 35), and Ian

Battye 33. A fluid lunch at the "Fox and Chickens" resulted in disappointingly low scores on the 500 yard range; however, when the time came to fire from 600 yards, nature had reasserted herself, and scores improved. P. F. Tatham won the University Championship with a score of 96 (ex 105), counting out R. S. Thompson into third place, with the same score.

The Hospital entered two teams for the **Armitage Inter-Hospital Cup** and most people shot well. Unfortunately the 'B' team scored more than the 'A', more indeed, than any other team taking part. Unfortunately again

CRICKET CLUB

AUGUST CRICKET TOUR OF SUSSEX

Bart's v. Ferring. August 1st.

The first match of the August tour was played under cloudy skies at Ferring. With a number of people down from London, Bart's had a strong side.

Bart's batted first, and although Hand went in the second over the runs soon came on this small pitch. Higgs and Thomas had 75 on the board in the first hour. The run rate was sustained when Griffiths joined Higgs and 148 came in two hours. We eventually declared at tea at 200 for 6 wickets, Higgs hitting a powerful 81.

On commencement of play after tea all the fast bowlers proved too good for the Ferring batsmen. With the ball cutting on this dampish wicket Ferring were all out for 52. P. Savage finishing with 4 for 8 runs in eight overs.

Result

Bart's 200 for 6 dec. (R. Higgs 81, N. Griffiths 44).

Ferring 52 (P. Savage 4 for 8, C. Vartan 2 for 15, J. Harrison 2 for 7, C. Richards 2 for 14).

Bart's v. Rottingdean. August 3rd.

Bart's batted first at Rottingdean and were soon in trouble. On a wicket which is always helpful to bowlers, Bart's lost Offen, Higgs, Hand and Griffiths for 23 runs in the first hour's play. However Gately and Wood took the score to 63 before Wood was out; Vartan soon followed and at lunch we were 63 for 6.

After lunch Gately, Harrison and Savage all made a few runs and we were all out for 93.

When Rottingdean batted they lost two wickets cheaply to Savage, but the third one did not fall until a fine catch by Hand removed Stenton. Although Bart's captured another two

they were ineligible to take the Cup, and they were forced to be content with 1st place in the 'B' team competition with a score of 370. The 'A' team came second with a score of 367 (ex 400) to University College Hospital, who scored 368, in the 'A' team competition.

In addition to the above matches, four members of the Club have fired for United Hospitals and one for the University.

The following have represented the Hospital during the season: P. F. Tatham, J. M. Turner, R. S. Thompson, A. K. Bacon, I. R. Battye, C. I. Franklin, D. Griffiths, P. Doyle, O. Smales, C. Sedergreen, I. McLellan. P.F.T.

wickets we eventually lost by five wickets, the remaining runs being attained by one of the batsmen chancing his bat and succeeding.

Result

Bart's 93.

Rottingdean 94 for 5 (P. Savage 3 for 34, C. Vartan 2 for 50).

Bart's v. Barcombe. August 5th.

On a dull day Bart's once again batted first and Higgs and Hand gave us a good start after Offen was out in the first over. When Higgs was out with the score at 78 he had made 60.

With the pitch taking spin the scoring rate slowed down. However after a patient 50 from Griffiths and a rapid 23 from Vartan Bart's declared at 187 for 8.

Barcombe opening batsmen were not used to the speed and accuracy of Vartan and Savage. This combined with some rather lucky bowling from Griffiths resulted in Barcombe being all out for 85.

Result

Bart's 187 for 8 (dec.) (R. Higgs 60, N. Griffiths 50, C. Vartan 26).

Barcombe 85 (N. Griffiths 5 for 43, P. Savage 3 for 14).

Bart's v. Seaford Seagulls. August 6th.

For the fourth successive time Vartan won the toss and elected to bat. Once again we started disastrously, four wickets falling for 18 runs. A fine innings from John Osmond the Barcombe captain, who kindly played for us, saw us through this trouble. Finally aggressive innings from Vartan and Savage enabled us to declare at 165 for 6.

Vartan opened the bowling with Savage and Griffiths and Seaford were soon in trouble. With the wicket still taking spin five wickets

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fell to Griffiths. However it was left to Osmond to take the last three wickets who had been defiant for an hour, the final catch being taken by P. Bradley-Watson, and acclaimed by himself as the best he had ever seen.

Result

Bart's 165 for 6 dec. (J. Osmond 52, C. Vartan 33, P. Savage 27).

Seaford 72 (N. Griffiths 5 for 23, P. Savage 2 for 25, J. Osmond 3 for 6).

Tour Party

C. Vartan, J. Gately, R. Higgs, P. Savage, R. Wood, J. Harrison, R. Hand, D. Pope, P. Bradley-Watson, N. Offen, R. Atkinson, N. Griffiths.

INTER HOSPITALS CUP FINAL v. ST. THOMAS HOSPITAL. AUGUST 16th, 17th and 18th.

Bart's entered this final with some apprehension, as none of us had played a three days cricket match before.

Unfortunately this time Vartan did not win the toss and a strong Thomas's batting side elected to bat on a perfect wicket.

Savage and Richards opened the bowling but the batsmen found little difficulty in playing them, Hutson in particular showing some glorious cover drives; however with the score at 26 Savage beat him with a swinging full

toss. No further wicket fell until lunchtime during which time 76 runs were added. Then Savage (having changed ends when Richards pulled a muscle) beat Smith twice in the last over before lunch, the second time knocking out his off stump.

After lunch Bart's fared better, with Griffiths bowling well from one end and Harrison from the other, and wickets fell at regular intervals. Griffiths had Moss taken behind in his first over, followed by having Read well stumped by Gately and catching Thwaites off his own bowling. Harrison meanwhile had Presbury and Stansfield caught, and trapped Critchley l.b.w. Consequently Bart's went into tea well pleased with the score at 191 for 8.

After tea however the batsmen were allowed to get on top, and the next forty minutes saw another 60 runs added. Eventually Thomas's were all out for 266, a bad after-tea spell for Bart's.

The twenty minutes before close of play went badly for Bart's; Burnand bowling very fast beat both Higgs and Thomas, and at the close the score was 21 for 2.

Another fine day saw Griffiths and Offen trying to repair the bad start. They saw the fast bowlers off and the score to 58 before they were both out. Hutson bowling his leg breaks captured the wickets of Gately, Wood

and Major with the score at 71. It was then left to Vartan, Harrison and Savage to save the follow on. Vartan in particular played a mature and patient innings of 33, waiting for the bad ball and then hitting it hard.

We were eventually all out for 135 at 3.30, giving Thomas's a lead of 131.

We now had to stop Thomas's scoring enough runs to make us bat again that evening. However we were unable to stop the runs before tea, when the score was 102 for 1. Smith being run out for 45.

After tea Savage and Vartan bowling to defensive fields kept the score down. Savage bowling fast over the wicket proved very effective.

Vartan bowled Hutson when he was one short of his 50, then Savage had Moss caught, and Read bowled. Finally a brilliant gully catch by Higgs dismissed Thwaites.

Thus excellent bowling and fielding had prevented Smith from making Bart's bat that night. This left Bart's with the task of getting 312 the following day.

The third day saw Bart's off to a bad start again. Four wickets had fallen for only 48 runs; only Thomas had managed to stay at the crease.

After lunch further wickets fell showing the weakness of our middle order batsmen compared with Thomas's. It was left to Vartan and Harrison to give us our biggest stand of the match 48. Vartan again played a fine innings of 45, it was a pity that some others could not have done the same.

However with the return of the fast bowler Burnand the last three wickets fell to him for five runs.

This left Thomas's the winners by 150 runs, worthy victors.

Scoreboard

St. Thomas' Hospital:

<i>1st innings</i>	
Hutson, b. Savage	21
Smith, b. Savage	34
Moss, ct. Gately, b. Griffiths	34
Thwaites, ct. & b. Griffiths	34
Read, ct. Gately, b. Griffiths	14
Presbury, ct. Richards, b. Harrison	24
Stansfield, ct. Gately, b. Harrison	10
Tapper, b. Savage	63
Critchley, l.b.w. Harrison	0
Williams, b. Harrison	11
Burnand, not out	3
Extras	20
Total ...	266

2nd innings

Hutson, b. Vartan	49
Smith, run out	45
Moss, ct. Offen, b. Savage	44
Thwaites, ct. Higgs, b. Vartan	1
Read, b. Savage	19
Presbury, ct. Thomas, b. Harrison	5
Stansfield, not out	8
Tapper, not out	6
Critchley)	
Williams) Did not bat	
Burnand)	
Extras	3
Total for 6 dec. ...	181

Bart's bowling figures:—

<i>1st Innings</i>				
	Overs	Maidens	Runs	Wickets
Savage	22.1	4	71	3
Richards	12	3	22	0
Vartan	13	1	56	0
Harrison	22	6	41	4
Griffiths	24	7	56	3
Thomas	1	1	0	0

St. Bartholomew's Hospital:

<i>1st innings</i>	
Higgs, b. Burnand	2
Offen, ct. Read, b. Thwaites	26
Thomas, b. Burnand	4
Griffiths, b. Hutson	21
Gately, st. Smith, b. Hutson	7
Major, st. Smith, b. Hutson	8
Wood, ct. Williams, b. Hutson	0
Vartan, ct. & b. Thwaites	33
Harrison, run out	12
Savage, ct. Critchley, b. Hutson	7
Richards, not out	0
Extras	6
Total ...	135

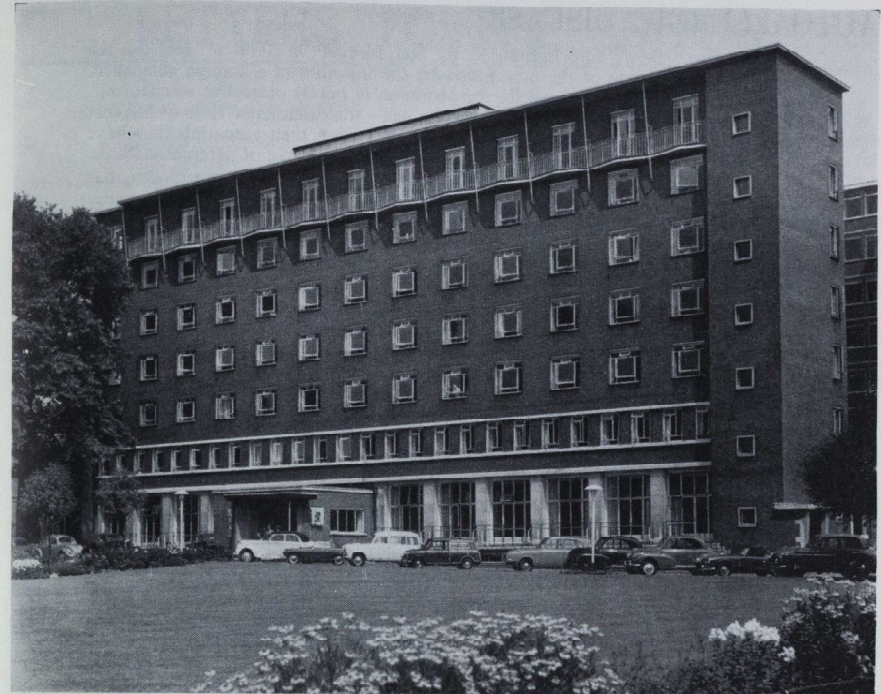
2nd innings

Higgs, ct. Moss, b. Williams	11
Offen, b. Burnand	2
Thomas, st. Smith, b. Hutson	18
Griffiths, l.b.w. b. Burnand	1
Gately, l.b.w. b. Hutson	18
Major, ct. Read, b. Moss	15
Wood, ct. Critchley, b. Moss	14
Vartan, b. Burnand	45
Harrison, ct. Smith, b. Burnand	18
Savage, b. Burnand	4
Richards, not out	4
Extras	11
Total ...	162

2nd Innings

	Overs	Maidens	Runs	Wickets
Savage	21	4	53	2
Vartan	16	2	47	2
Harrison	11	1	44	1
Griffiths	7	1	34	0

N.J.G.



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AUTOALLERGIC DISEASE

The term *allergy* was introduced by von Pirquet¹ in 1906 to describe the altered biological state of the host following the injection of a foreign substance; *immunity* could thus be reserved for the operation of purely protective mechanisms. The concept of autoallergy—or self versus self—was anathema to the classical immunologists (Ehrlich's *horror autotoxicus*). But since then autoantibodies have been implicated with great prodigality in the aetiology of a host of different diseases.

Nowadays autoallergy, although the target of much clinical scepticism, has become a fashionable concept following the classical experiments of Rose and Witebsky² in 1956. Following the discovery of antibodies to thyroglobulin (and other thyroid antigens) in the serum of patients with Hashimoto's disease, they found that they could reproduce similar lesions in the rabbit by removing the animal's thyroid and re-injecting extracts of the gland with Freund's adjuvant.

In certain varieties of acquired haemolytic anaemia it seems clear that the actual red cell damage can be directly attributed to the adsorption of circulating autoantibodies. Whether it is the surface properties or the intracellular metabolism that is affected, the net effect is to cause spherocytosis and removal of the damaged cells from the circulation. Two ingenious hypotheses have been put forward to explain the sudden revolt of the body against its own red cells. The first postulates an 'unmasking' of hidden antigens by exposure of the cells to drugs or micro-organisms. In contrast, Burnet³ located the fault in the antibody-forming tissues where a mutation might give rise to a clone of cells which no longer recognised the erythrocytes as 'self'.

Some 70% of sera from patients with rheumatoid arthritis give a positive Rose-Waaler test for the rheumatoid factor, a macroglobulin believed by most workers to be an antibody to the host's own denatured γ -globulin (i.e. an anti-antibody). The discovery of this factor in relatives of patients with rheumatoid arthritis, as well as its frequent presence in the serum prior to the development of overt clinical manifestations, suggest a causal rôle for autoantibodies in this disease. The only well-established clinical correlation, however, is between rheumatoid factor and the presence of subcutaneous nodules⁴. Furthermore the occurrence of the disease in patients with agammaglobulinaemia shows that circulating antibodies cannot play the fundamental pathogenetic rôle. This seems also to be the case in systemic lupus erythematosus, where most of the antibodies so far discovered are directed against intracellular components. Gell and Coombs⁵ (1963) have emphasised that circulating autoantibodies, so far from causing a disease, may actually result from it (as seems to be the case in myocardial infarction); alternatively, as in rheumatoid arthritis, they may merely reflect an underlying pathogenetic mechanism of the delayed hypersensitivity type.

In 1909 Bordet and Streng⁶ described a substance *conglutinin*, a β -globulin occurring naturally in ruminant (and human) serum which causes clumping of 'alexinated' material (antigen-antibody complexes with adsorbed complement). Similar substances, *immunoconglutinins* (γ -globulins), can be found in the serum after injection of alexinated material. Coombs and Coombs (1963)⁷ have suggested that immunoconglutinin is an autoantibody to complement denatured by adsorption. They have shown that it will protect mice from experimental infections, and that high titres are present in man during bacterial infections. Immunoconglutinin thus appears to be a rare and fascinating example of a beneficial autoantibody, and as such somewhat out of place in modern theories of aetiology.

1. Von Pirquet, C., *Munch. med. Wochenschr.*, 1906, **30**, 1457.
2. Rose, N. R. and Witebsky, F., *J. Immunol.*, 1956, **76**, 417.
3. Burnet, M., *Brit. med. J.*, 1959, **ii**, 720.
4. Ball, J., *Ann. rheum. Dis.*, 1952, **11**, 97.

5. Gell, P. G. H., and Coombs, R. R. A., *Clinical Aspects of Immunology*, 1963, 317-36.
6. Bordet, J., and Streng, O., *Zbl. Bakt. (orig.)*, 1909, **49**, 260-76.
7. Coombs, A. M., and Coombs, R. R. A., *J. Hyg. (Lond.)*, 1953, **51**, 509-31.

LETTERS TO THE EDITOR

OPHTHALMOLOGY PRIZES

Sir,—To encourage the recognition of serious eye diseases, and thereby to prevent blindness and to excite interest in this neglected clinical field, the Faculty of Ophthalmologists has offered an annual prize of ten guineas each to a number of teaching hospitals. Moreover the late Dr. Potts, who was H.P. and Eye H.S. here, has left a legacy of eight pounds a year for a prize in ophthalmology in this hospital.

It is our intention to hold an examination on November 26th, and thereafter annually, to consist of (1) Written paper—2 hours. (2) Clinical and Oral—20 minutes. The Faculty Prize would be awarded to the candidate with the highest total marks and the Potts Prize to the best performance in the Clinical and Oral examination. We hope that in the future University and Conjoint examinations will include a question on eye diseases in the written part of the examination and have patients in the clinical—a practice which was always part of the Cambridge finals and sometimes at Oxford. Details about the time and place of this examination will be posted on the College Notice Boards at least one month before November 26th.

Yours sincerely,

H. B. STALLARD
J. H. DOBREE

17th September. St. Bartholomew's Hospital.

"PAST" VICTORIOUS

Sir,—In your issue of September 1965, you credit the Present cricket team with having defeated the Past by 143 to 118. This, I believe, is a misrepresentation. Indeed, I would go so far as to state that the Past won. Having spent the greater part of the morning and early afternoon umpiring the match, I may well have dozed off after tea. A draw might have had insufficient impact to arouse me, but I am sure I would have noticed a defeat for the Past. Perhaps your Sports Sub-editor could verify the figures.

Amongst the details of the Past, you have the item "C. Jumper 35". Presumably this is a shortened form of Colin Juniper. I only hope

that his many friends will realise this and rejoice that he had a merry knock. For your information, I would add that Colin is not an unduly sensitive man and certainly he will not write and complain. On the other hand, it would be unfortunate if his feelings were hurt. Perhaps you will be able to make suitable amends.

I would remind you, Sir that you yourself will soon be "Past".

Yours sincerely,

NEVILLE C. OSWALD

President Bart's Cricket Club,

15th September. 70, Harley Street, W.1.

(Dr. Oswald is absolutely right of course, and we apologise to the Past who emerged worthy victors by two wickets; also to Dr. Juniper, the architect of victory, for the sartorial corruption of his surname. Corrected scores: Bart's Present 143; Bart's Past 144-8.)

UNCHANGED SPIRIT

Sir,—Fifty years ago, as a Bart's student I was admitted to the late Mark ward under Sir Archibald Garrod. A little while ago I was re-admitted to the Smithfield ward as a consultant. I thought that some of your readers might be interested to hear from me as to the difference. Shortly, there was none, since the same dedicated Bart's spirit was there on both occasions. Half a century is a long time, but I can assure you that the same wonderful kindness from the most junior probationer to the consultant in charge was present. The sister was just as tough, devoted and lovable as in the past . . . the nurses just as overworked and happy as ever. The Bart's spirit was as tangible and almost visible as it was in the Great War of 1914.

Fifty years ago from my window, I saw Sir Thomas Horder, Sir D'Arcy Power, Sir Holburt Waring, Jimmy Calvert, Sir Anthony Bowlby and countless others gathering their flocks of students in the square, and on this latter occasion it was just the same. The consultants had the same idiosyncrasies and varied methods of transport as in the old days. Sir D'Arcy

often used to arrive on a bicycle and Sir Gordon in his Rolls it is just the same now.

The only difference I could see was that the trees are now much larger, and I was told that fewer students entered the Fountain involuntarily. Also, I did not notice the nocturnal visits of students to the Nursing staff as in my day . . . but that may well be that I slept too well.

My gratitude to Bart's as both student and patient.

Yours etc.,

R. ROWDEN FOOTE
121, Harley Street, W.1.

21st September.

AMOURS FINANCED

Sir,—It has distressed me to read that members of the resident staff are planning a campaign to obtain better pay and quarters. Have they failed to realise:

1. that as members of the staff of one of the more illustrious teaching hospitals, they are envied by 75 per cent of the Doctors in the World.

2. that, being members of a respected profession, they are placing themselves in the eyes of the public, in the same category as railway and Post office workers.

3. that Medicine is an exacting mistress and that until they have completed their apprenticeship, they have no business to get married; is it fair that the taxpayer should be asked to finance their amours?

I am Sir,
Yours etc.

JOHN WHITTINGDALE
(House Surgeon, 1918).
Newland,

24th September. Sherborne, Dorset.

£650 FOR OXFAM

Sir,—I wish to bring to the notice of your readers the excellent results achieved by St. Bartholomew's Hospital Oxfam Committee. Since January 1963, this Committee has collected over £650 for relief work in under-developed territories.

To reach this sum many fund raising projects have taken place, including the weekly

lunch which is held each Tuesday in the Smithfield Refectory.

I wish to thank most sincerely all members of the Committee for the time and energy devoted to this work, which is greatly appreciated.

Yours faithfully,
A. J. B. TEMPLE,
Oxfam Office,
12, Crane Court,

10th September. Fleet Street, E.C.4.

RESTORATION ARCHITECT

Sir,—All who have had a midwifery appointment at Peterborough must have been impressed by the architecture of Thorpe Hall, which houses part of the maternity unit. However I do not think it is generally known that Thorpe Hall was built by Peter Mills, a Governor of Bart's.

Mills was borne in 1600 and was a bricklayer by trade. In 1643 he was appointed Bricklayer to the City of London, a post which he held until the Restoration, and later he became Master of the Tyler's and Bricklayer's Company. He was a supporter of Cromwell and the Commonwealth. In 1644 he became a Governor of Bart's and rented a house from the hospital in Bartholomew Close.

Thorpe Hall was built for Oliver St. John, who was Chief Justice to Oliver Cromwell, in 1656. John Webb was thought to have been the architect until 1952 when a contract was discovered which names Peter Mills as the Architect. The house is a magnificent example of Commonwealth architecture and shows a number of peculiar features which it shares with a few other buildings of the time, in particular Wisbech Castle which Mills probably built.

After the Fire of London he helped survey the city and produced a plan for rebuilding which was rejected. However he played an active part in rebuilding Bart's property in the city. In 1677, in spite of being seriously ill, he was appointed Surveyor to the City, a post he held until his death in 1670. In his will he left ten shillings a piece to the twenty Governors "that most frequently meet at the Compting House about the affairs of the Hospital, whom I desire may be at my funeral, to buy each of them a Ring". He left for the same

purpose to "every person meeting at the Greene Dragon". He was buried in the middle aisle of St. Bartholomew-the-Less on August 25th, 1670.

Yours faithfully,

ROGER SANDERS
Abernethian Room.

20th September.

Engagement

GILBERTSON—LOVELL.—The engagement is announced between Robert Colin Gilbertson and Miss Elisabeth Mary Lovell.

ROBERTS—HILLEN.—The engagement is announced between Philip F. Roberts and Miss Heather Anne Hillen.

WINTERSGILL—BURGESS.—The engagement is announced between Michael John Wintersgill and Miss Eleanor Mary Burgess.

Marriages

ANDERSON—SAVAGE.—On July 10, John Keith Anderson to Miss Rosalind Beatrix Savage.

FRY—TYLER.—On September 4, David Edmond Fry to Miss Barbara Louise Tyler.

PAGE—ASHWELL.—On September 16, Dr. A. P. Menzies Page to Georgina, widow of Philip E. Ashwell.

Births

VANDY.—On August 24, to Monika (née Preuss) and Dr. K. W. Vandy, a daughter (Anika).

Deaths

BARBER.—On September 23, Denis Sydney Duncan Barber, M.B., B.S., aged 54. Qualified 1935.

DAWSON.—On August 19, Sir Bernard Dawson, K.B.E., M.D., F.R.C.S., F.R.A.C.S., F.R.C.O.G., aged 82. Qualified 1905.

GRAY.—On September 6, Anthony Julian Gray, M.B., B.S., M.R.C.S., L.R.C.P., aged 40. Qualified 1955.

MILLER.—On August 18, Kenneth Hamer Miller, M.B., B.S., aged 46. Qualified 1943.

PACKER.—On July 4, Francis Harold Packer, M.B., B.S., M.R.C.S., L.R.C.P., aged 46. Qualified 1941.

PARKER.—On June 27, George Musgrove Parker, M.B., B.Chir., aged 79. Qualified 1913.

POSTLETHWAITE.—On September 26, Joseph Marshall Postlethwaite, M.A., M.B., B.Chir.

M.R.C.S., F.R.C.P., aged 86. Qualified 1906.

RANSOME.—On September 11, Marguerite Alice Ransome, formerly Sister Luke.

THOMSON.—On September 27, Norman Gray Thomson, M.A., M.B., B.Chir., J.P. Qualified 1921.

Change of Address

DR. C. A. HOOD.—to 46, Station Road, Chinnor, Oxon.

Appointments and Awards

Dr. A. J. Salsbury has been awarded the Sir Lionel Whitby Medal for 1963-64.

Mr. Reginald M. Vick has resigned his appointment of Director of the South Western Regional Cancer Records Bureau after thirteen years.

November Duty Calendar

Sat. & Sun., 6th & 7th.

Dr. Oswald
Mr. Tuckwell
Mr. Aston
Dr. Jackson
Mr. McNab Jones

Sat. & Sun., 13th & 14th.

Prof. Scowen
Prof. Taylor
Mr. Burrows
Dr. Boulton
Mr. Dowie

Sat. & Sun., 20th & 21st.

Sir R. Bodley Scott
Mr. Hunt
Mr. Aston
Dr. Cole
Mr. Fuller

Sat. & Sun., 27th & 28th.

Dr. Black
Mr. Nauntion Morgan
Mr. Manning
Dr. Boulton
Mr. Cope

Physician Accoucheur for November is Mr. Howkins.

Errata

We wish to apologise to Dr. J. B. Gurney Smith whose letter (*Pseudopodial Procession*) appeared on page 390 of the September Journal and included the following sentence: "I recall mutilating this topic in the Journal in 1937". This should have read: "I recall ventilating this topic . . ."

Mr. Clayton and Mr. Watkins regret to have to inform their readers that the price of Afternoon Tea at Brown's is six shillings, not four shillings and sixpence as stated in their article of last month.

ABERNETHIAN SOCIETY

Programme for the Michaelmas Term.

Thursday 18th November. Professor A. M. Boyd, F.R.C.S.: "Self-inflicted Injuries".

Thursday 25th November. Professor E. Stengel, M.D., F.R.C.P.: "The Doctor's Rôle in the Prevention of Suicide".

Thursday 2nd December. "Thoracic Surgery": Chairman, Mr. O. S. Tubbs, F.R.C.S.

Thursday 16th December. Dr. R. Fox, M.R.C.P., D.P.M.: "Things my Hospital never told me".

Committee Elections.

President: Miss Parveen Kumar
 Secretary: Miss Wendy Sanders
 Treasurer: G. N. W. Kerrigan
 Committee: N. Offen
 J. Burman
 C. R. W. Edwards
 J. M. A. Whitehouse

WESSEX RAHERE CLUB

The Autumn Dinner of the above club will take place on the 13th November, 1965, at the Crown Hotel, Wells, Somerset, under the Chairmanship of Dr. Thrower.

The Guest of Honour will be Maj. Gen. R. J. G. Morrison, C.B.E.

Further details will be circulated, or can be obtained by any Bart's graduates practising in the West Country, from the Hon. Secretary, Dr. George Lloyd, "Kirkham", Babbacombe Road, Torquay.

SKI CLUB

The 1966 ski-ing party will be going to Saalbach (Austria), leaving London on the 15th January and returning on the 30th January. The cost will be approximately £41 for accommodation, travel and insurance.

Further information can be obtained from John Wright or Roger Boston (Abernethian Room). Application for places on the party must be made before the end of November.

MUSIC SOCIETY

The Orchestra will give a concert on Monday, 15th November, in Gloucester Hall. The programme will include Beethoven's 1st Symphony, J. S. Bach's A minor Violin Concerto, and Mozart's Flute Concerto.

In addition the newly-formed Bart's Madrigal Society will deliver its first public performance, singing works by Bennet, Orlando Gibbons and others.

We extend our deepest sympathy to the family of Dr. Roger Phipps, who qualified in April of this year, and who was killed in a car accident on 26th September, together with his son Julian, aged nine months. We hope to publish an obituary notice next month.

Obituary

DR. F. H. PACKER

After a long illness, Dr. F. H. Packer died in St. Bartholomew's Hospital on July 4th at the early age of 46.

Bink Packer was educated at the William Ellis School, London, and entered Bart's in 1936. He qualified M.B., B.S. in 1941, and after a preliminary job as House Surgeon, he became House Physician on a medical unit under Dr. E. F. Scowen.

He later became House Physician at the East Suffolk and Ipswich Hospital, Ipswich. After joining the R.A.M.C., he saw service mainly in the North African campaign and also in Albania.

After demobilisation he entered general practice in Swanley, Kent, and spent the next twenty years as a general practitioner. He was a conscientious and popular doctor and rapidly built up a large group practice of five partners.

He had a great interest in all forms of sport, and as a medical student was a keen soccer and tennis player. He later became a very fine golfer.

He is survived by his wife, who nursed him with care and devotion, and four children, two of whom are at St. Bartholomew's Hospital.

Retirement

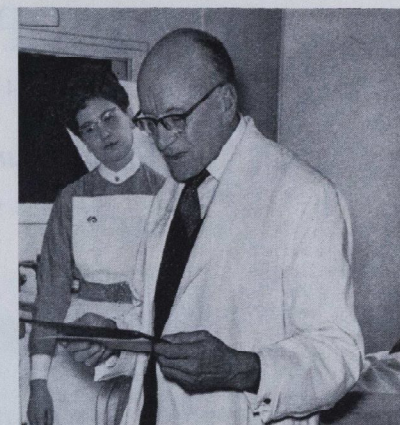
ALLAN WILLIAM SPENCE

The retirement of Dr. Spence, senior physician, and member of the senior staff for almost thirty years, has taken from our midst a colourful character, a brilliant physician and an outstanding endocrinologist.

He was born in Bath on 4th August, 1900, or to use his own words, "on the same day as the Queen Mother, though she is not aware of this fact". He was educated at King Edward VI's School, Bath, proceeding to Cambridge in 1919 where he took an honours degree at Caius, while, at the same time, rowing in the college boat with such success that he remained at Cambridge for an extra year to be president of the Caius boat, a distinction which gained him election to the Hawks Club.

Coming to Bart's in 1923, his promising clinical years culminated in his winning the Medical Brackenbury. Qualifying in 1926, he became House Physician to the late Professor Sir Francis Fraser and passed the London M.R.C.P. the following year (present aspirants please note!). He won the Lawrence Research Scholarship and Gold Medal (1929-30), became demonstrator of Physiology in 1928, of Pathology in 1930 and obtained the Cambridge M.D. in 1931. From 1931-32 he visited the U.S.A. as a Rockefeller Foundation Fellow, studying thyroid disease under Dr. David Marine in New York. Thereafter his success in medicine and endocrinology was assured. He was appointed First Assistant to the Medical Unit in 1933, Assistant Director in 1936, and Assistant Physician to the Hospital in 1937, in which year he was elected to the F.R.C.P. London. He became Cullin Research Fellow in 1938. During his early years on the senior staff he published important papers on endocrinology, including work on mastitis, undescended testicles, and clinical trials with testosterone.

Came the Second World War, and in 1942 he abandoned his academic career to serve his country. From 1943 to 1945 he was O.C.



Medical Division of the 97th General Hospital, serving in N. Africa and Greece. Sadly, the end of the war did not end the fragmentation of Bart's, and his rustication at 'Hill End' after the war was a loss to the Hospital.

To highlight some of Dr. Spence's achievements: he became a Member of the Association of Physicians of Great Britain and of the Society for Endocrinology, President of the Section of Endocrinology of the Royal Society of Medicine, Member of the International Society of Internal Medicine, Fellow of the Medical Society of London, and Member of the Harveian Society, the Osler Club and the London Thyroid Club. He has examined for the Universities of Cambridge and London, for the Conjoint Board and for the Society of Apothecaries. He is a Freeman of the City of London and a member of the Livery of the Society of Apothecaries of London. His book on Clinical Endocrinology was published in 1953 and he wrote the section on Endocrinology in the British Encyclopaedia of Medical Practice.

But it is for more than his academic success that Pat (or 'Poot') Spence will be remembered. As a believer in human qualities, an honest clinician, a logical teacher, a loyal friend to students and junior staff, and a keen lover of life he added much to the tradition of Bart's. We wish him every happiness in his retirement.

T.P.

PHILIPPE PINEL

1745-1826

“*Bienfaiteur des Aliénés*”

by J. M. A. WHITEHOUSE



From the lithograph of Pinel by Vigneron.
By courtesy of the Wellcome Trustees.

For many people the name Philippe Pinel means little or nothing, perhaps because the impact of his achievements was not so much felt in this country as in the rest of Europe, or perhaps because his work was overshadowed by the dreadful consequences of the French Revolution. I hope, therefore, in the ensuing article to discover for them something of the life and doings of this extraordinary man, whose

work earned for him the title, “benefactor of the insane.”

Pinel was born on the 20th April, 1745, in South West France; not as some early biographers described in the village of St. Paul, where his family had lived for generations before him, but in the nearby village of St. André d’Alayrac in the department of Tarn, the home of his mother’s parents.

Although occurring over a century beforehand, memories of the religious wars were still alive in the minds of the people of this region. St. Paul, besieged in 1625, was razed by the Royal Army and its people routed. Even after the rebuilding of the village, many of the ruins remained as monuments to its uncertain history. Pinel’s father and his ancestors were doctors in this village, and in spite of his many wanderings later in life and his different birthplace he always regarded St. Paul as his native town.

The eldest of seven children he was something of an individualist from his earliest days. Often he joined the hunt, chasing among the hills from which could be seen the mountains of the Massif Central; but it was usually not long before he retired to the solitude of a quiet field, and replacing his gun for a book, to which he was far better suited, would read his favourite works which included Horace and Virgil.

His mother, a pious and distinguished woman, took upon herself the task of educating Pinel, but on her death when he was only fifteen years old, his education was continued by the schoolmaster of St. Paul, l’Abbé Gorse. He tutored him in the elements of French and Latin in which his progress was rapid. It was on his advice that Pinel was sent to the Collège des Doctrinaires at Lavaur to study the humanities; where, his reputation as a scholar preceding him, he received a coveted post as a novice which carried with it a small grant.

At this young age he already possessed many of the qualities which were to serve him well. His character was uncomplicated and reserved. He studied and conducted himself well. His study of the ‘Rhetoric’ over, he donned the robe and took his lower orders.

Pinel stayed about four years at Lavaur studying Letters and Philosophy, but not restricting his interests to these alone. To earn money for himself he gave lessons in the town, and St. Paul being only about seven miles distant, he retired there, sometimes accompanied by his friends and sometimes alone. At home he was regarded by his brothers and sisters with a mixture of deference and affection, and as the eldest son it was he who, in the evening, recited the family prayers.

In 1767, when he was 22 years old, he left Lavaur to go to Toulouse. There he established himself in modest lodgings and applied himself to further study, producing ultimately a thesis entitled *De la certitude que l’étude des mathématiques imprime au jugement dans son application aux sciences*. This he read to the Faculté des Lettres for his Master of Arts degree. He received it with honours.

Pinel’s insatiable curiosity directed him towards the natural sciences, particularly physiology and medicine, and so with his simple personal needs satisfied by his revenue from private teaching, he began his doctorate in medicine. Little record exists of this period of his life; one must assume therefore that he lived something of the life of a recluse devoting all his energies to his studies. Unfortunately the subject of his thesis in medicine is not known, although he is known to have presented it on the 22nd December, 1773.

One of the most celebrated schools of medicine at this period in France was that of Montpellier where Boissier de Sauvages, author of *Nosologie Méthodique*, had lived and taught until his death in 1767. A lover of the exact sciences, and a hater of the multiplicity of hypotheses that surrounded the studies of science, it was understandable that Pinel should direct himself to this city to further his studies. He came in 1774, his reputation being such that within a short time of his arrival he was sought by one of the principal inhabitants of the town as tutor to his son.

It was at Montpellier that he made the acquaintance of a brilliant young man called Chaptal, who although younger than Pinel, had already made something of a name for himself as a chemist. Chaptal had studied a diversity of subjects but in spite of his brilliance he appeared for all this, as Pinel says, “as a man embarrassed by his riches, seeing not the object of the matter he was investigating but the poetry and philosophy related to it.” Feeling that he could help this man to a more productive appreciation of his brilliance, Pinel suggested a novel form of treatment. “Mon jeune ami, lui dit-il, il est urgent de vous guérir; pour cela, je ne vous demande qu’une légère complaisance, c’est de lire avec moi chaque jour quelques pages de Montaigne, de Plutarque et d’Hippocrate.” Apparently this was successful in restoring Chaptal’s equilibrium. Perhaps Pinel’s first psychotherapeutic experience.

Another relationship which affected Pinel’s life was that which he formed with a young English student, who introduced him to the study of the English language, thus enabling him to broaden yet further his already wide range of knowledge. He was also able to translate Cullen’s *Nosology* into French.

It was with this Englishman that Pinel left Montpellier for Paris in the year 1778. Both Voltaire and Rousseau had died, each leaving behind them fervent disciples; it was at this effervescent time, shortly after the death of Rousseau, that Pinel entered Paris.

He lodged in the Latin Quarter, meeting his younger brother Louis just before the latter left for St. Paul to take over their father's practice. He seems to have treasured his independence in his early years in Paris, an independence which he was able to keep by continuing to give tuition, write articles and translate books. On his entry to Paris he had profited from some letters of introduction to meet the Geometrist Cousin, a member of the Academy of Sciences, who gave him the opportunity of giving private tuition in mathematics to a number of students.

After several years in Paris Pinel was introduced, through his friends Cabanis and Roussel, to the élite society who met at the house of Madame Helvetius; and influenced perhaps by the idea of America's new liberty, but more likely by her first ambassador to France, Benjamin Franklin, he was seriously persuaded to consider emigrating to America. Fortunately, but only after lengthy consideration, he revoked the idea.

Throughout these years his pen was very productive, familiarising the medical public with his name. The *Journal de Physique* printed a considerable number of his articles, and from 1784 to 1789 he directed the *Gazette de Santé*. He also translated at about this time Cullen's *Institutions of Medicine*.

The title 'Doctor Regent of the Faculty' was essential to any doctor desiring to practise medicine in Paris. This privilege was jealously guarded, and so it was that Pinel was obliged to submit himself for this examination. He tried three times to obtain this qualification, each time in vain. In spite of his extensive knowledge and undoubted intellectual capacities, his timidity and the tremendous difficulty he had in speaking in public defeated from the beginning any hope of success. On the third occasion he was examined at the same time as an ex-gendarme for whom he had written a thesis at Montpellier (entitled—*De l'équitation et de l'hygiène du cavalier*). A striking man, of ready wit but small intelligence, he served only to exaggerate the physical insignificance of Pinel; and since the examinations were discoursed in Latin, a language none too familiar to the jury, they had little hesitation in preferring the more imposing of the two.

In 1783 one of Pinel's friends was attacked by a fit of mania, due it was said "to poverty, too much study and excessive ambition for glory." Pinel saw him each day and recorded all his observations, deploring his own inability



Lunatic in the early 19th century. After a drawing by George Arnold, A.R.A., made in Bethlem Hospital. The lunatic was James Norris who was given to homicidal attacks, and was therefore chained up for a period of nine years.

to aid the return of his friend to normal health. The end, a tragic one, came when the man, wandering in a maddened state in the forests outside Paris, was set upon and killed by wolves still roaming there at large.

It was this sad case which guided Pinel yet further into the study of insanity. For a period of five years he worked in the 'Maison de Santé' of a Dr. Belhomme, studying mania and the moral treatment of insanity. Later writing in a *Treatise on Insanity* he mentions this establishment.

"About that time I was engaged to attend, in a professional capacity, at an asylum, where I made observations upon this disease for five successive years. My opportunities for the application of moral remedies were, however, not numerous. Having no part of the management of the internal police of that institution I had little influence over its servants. The person who was at the head of the establishment had no interest in the cure of his wealthy patients and he often, unequivocally, betrayed a desire that every remedy should fail. At other times he placed exclusive confidence in the utility of bathing, or in the efficacy of petty and frivolous recipes."

During the time Pinel was at this hospital a deluge of articles written by him on insanity appeared in the journals to which he contributed. Finally he had found his métier.

In 1792 he married Jeanne Vincent, a young orphan who was 24 years old, first writing to obtain his father's permission, as was the custom of the time. He had known her for some three years.

The French Revolution was to aid Pinel greatly and the ideas of patriotism and progress behind it appealed to him, but he was deeply distressed and horrified at the bloodshed that accompanied it—as is indicated in the letter he wrote to his brother on the 21st January, 1793, after witnessing the execution of Louis XVI:—

"C'est à mon grand regret que j'ai été obligé d'assister à l'exécution en armes avec les autres citoyens de ma section, et je t'écris le coeur pénétré de douleur et dans la stupeur d'une profonde consternation."

The new Republic appointed his friends Thouret and Cabanis to the posts of administrators of the hospitals of Paris, and shortly afterwards he was selected by them and named doctor in chief of the hospital of Bicêtre by decree on 28th August, 1793. There he was to carry out the new reforms decreed by the government.

This is perhaps a good point at which to pause for a moment to examine the formidable tasks that lay ahead of Pinel. For centuries the mentally ill had been the outcasts of normal civilisation. Colombier, advocat-



A scene at Bedlam in the first half of the 18th century. Satire by Hogarth (1735). By courtesy of the Wellcome Trustees.

ing reform in the mental hospitals of France, wrote in 1785:—

"Des milliers d'insensés sont renfermés dans des mains de force, sans qu'on songe seulement à leur administrer le moindre remède; le demi-insensé est confondu avec lui qui l'est tout à fait; le furibond avec le fou tranquille; les uns sont enchaînés, les autres libres dans leur prison. Enfin, à moins que la nature ne vienne à leurs secours en les guérissant, le terme de leurs maux est celui de leurs jours, et malheureusement la maladie ne fait que s'accroître au lieu de diminuer."

Daquin of Chambéry, in his *Philosophy of Madness* writes: "Everywhere the custom is to keep the insane shut up in dark cells from which they are rarely allowed to come out."

In 1869 Abraham Joly published a pamphlet entitled *The condition of the Insane in Normandy*, containing the report dated 1785 of a general inspector of hospitals on the Tower of the Insane at Caen. It reads as follows:—

"The cells are cut in the embrasure of the Tower wall. Their width at the entrance is six or seven feet, and three feet at the other end towards the opening which overlooks the town ditch. The cell is not more than six or seven feet deep, vaulted above and below, made of stone. Going down twenty-five or thirty feet, one comes into still more horrifying caves, where the vaults receive light and air only

through three or four extremely narrow openings, so that in broad day, one can see nothing without a light. There is such humidity that several times a year inundation takes place and water has to be removed by pumping. An unfortunate woman, brought to the Tower for ten days awaiting her admission to the convent, was forgotten there for two months and languished, her legs in water amidst the most disgusting reptiles."

Thus were the insane and the mentally ill housed. Their treatment was little better, fashionable methods being blood letting, purging, baths and cold showers. The more exuberant or violent of them were either restrained by straight jackets or kept in chains, and if the above

remedies did not succeed in calming them, they were whirled in chairs or spun in specially constructed drums, their consequent insensibility being regarded as proof of the efficacy of the method.

If this was not enough their food was often insufficient and their supervision effected by brutal jailers, many of whom were ex-criminals, only too happy to exert their new-found authority. It is not surprising that in most institutions the death rate was appallingly high.

In applying his moral method of treatment at Bicêtre, Pinel was greatly assisted by the hospital governor, a Monsieur Pussin, who himself seemed to be convinced of the values of such treatment and ably disposed to its application. The liberation of the insane from their chains did not occur first at Bicêtre however; ten years before in Florence Vincenzo Chiarugi removed the chains from his insane patients and in 1787 Abraham Joly did the same in Geneva. Pinel alone could not authorise their removal without the approval of the Central Bureau and of the Commune, whose members were St. Just, Robespierre and Couthon—the triumvirate whose power was then absolute. It was to the last of these that Pinel directed his request, expressing the desire that Couthon should come in person to the hospital to examine the problem for himself.

Couthon it should be mentioned, was a cripple, paralysed from the waist downwards, who was said to have planned the Sack of Lyon from his litter. A man dreaded by all who came into contact with him—the interview was to be no easy one for Pinel. On his arrival Couthon immediately warned Pinel of the consequences to himself of hiding the nation's enemies among the insane, and touring the hospital, seeing patients in all stages of madness and shrieking with fury at their restricted liberty, he became doubtful of Pinel's own sensibility in desiring to free such creatures. However, for all his timidity Pinel's tact and strength of purpose came to his rescue; he persuaded Couthon of the hopelessness of treating the insane to whom liberty was completely denied. Although by no means convinced, Couthon acquiesced.

Some forty patients were to have their chains removed initially. The first, an old English soldier who many years ago had killed his nurse, was conducted into sunshine outside. He is said to have remarked "How long it has been since I have seen such a wonderful thing." Another, a man of letters who previously had screamed incessantly, ran until he was worn out and calming himself, recovered almost im-

mediately. The third, a French soldier named Chevigne whose enormous frame caused some trepidation among his liberators, was released after Pinel had first given him some advice. "If you remain calm", he said, "I will keep you in my service. Give me your hand." He calmed immediately and showed great gratitude to his benefactors.

Pinel's sympathies for the victims of the Revolution were greatly suspect in Paris, so much so that on one occasion a number of revolutionaries forced their entry into Bicêtre. Pinel describes the event:—

"The Brigands, after the massacre of the prisons broke like madmen into the above hospital under pretence of emancipating certain victims of the old tyranny, whom it had endeavoured to confound with the maniacal residents at that house. They proceeded in arms from cell to cell, interrogating the prisoners, and passing such of them as were manifestly insane. A maniac bound in chains arrested their attention by the most bitter complaints which he preferred with apparent justice and rationality.

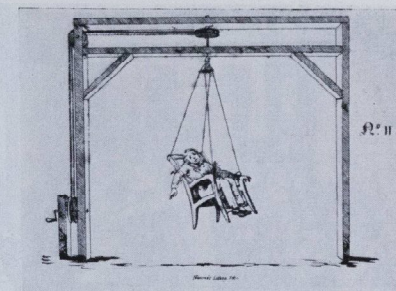
'Is it not shameful' said he, 'that I should be bound in chains and confounded with madmen?'. He defied them to accuse him of any act of impropriety or extravagance. 'It is an instance of the most flagrant injustice.' He confined the strangers to put an end to such oppression and to become his liberators. His complaints excited, amongst the armed mob, loud murmurs and imprecations against the governor of the hospital. They immediately sent for that gentleman and with their sabres at his breast, demanded an explanation of his conduct. When he attempted to justify himself they imposed silence upon him. To no purpose did he adduce from his own experience similar instances of maniacs, who were free from delirium, but at the same time extremely dangerous from their outrageous passions. They answered him only with abuse and had it not been for the courage of his wife, who protected him with her own person, he would have been sacrificed to their fury. They commanded him to release the maniac, whom they led in triumph with reiterated shouts of 'Vive la République'. The sight of so many armed men, their loud and confused shouts, and their faces flushed with wine, roused the madman's fury. He seized with a vigorous grasp the sabre of his next neighbour, brandished it about with great violence and wounded several of his liberators. Had he not been promptly mastered, he would have avenged the cause of outraged

humanity. The savage mob then thought proper to lead him back to his cell, and with shame and reluctance yielded to the voice of justice and experience."

On a further occasion shortly after Pinel had sheltered Condorcet, who was later sent to the scaffold, a number of 'sans-culottes' fell upon him one evening, their intentions being manifestly obvious. Had it not been for the prompt arrival of Chevigne whose physical appearance intimidated his master's adversaries, France might have lost yet another great man to the vagaries of the Revolutionaries.

It was on his accumulated studies at Bicêtre and before, that Pinel wrote *A Treatise on Insanity*, in which he sets out to study in detail the problem of insanity, its treatment and classification. Much of what he writes does justice to his good sense and advanced approach to the problems he encountered. I quote here his observations on the services in lunatic asylums:—

"The natural propensity of maniacs to indulge in passionate emotions, to murmur at trifling inconveniences and to represent circumstances, which they fancy in any degree objectionable, in colours the most unfavourable and exaggerated, must render necessary the strictest discipline and order in every department of their management. Hence the measures for security and regularity in the services of the institution, which were adopted at the Asylum de Bicêtre during my professional attendance upon it. The different rooms were opened in the morning, at 5 o'clock in the summer, at half past seven in the winter and between these hours in the intermediate seasons. Great attention was paid to the cleaning out of chamber utensils as well as the rooms and courts. To assure himself that nothing had been omitted or neglected, the governor paid a forenoon visit to all the rooms. Breakfast was served soon after the hour of getting up. The hour of dinner was eleven o'clock precisely. The rooms were set in order and examined in respect to cleanliness after every meal. The third and last portion of bread was distributed, with broth or some other mess, at four or five o'clock in the afternoon according to season. The patient's apartments were shut up for the night at a given hour when the bell was rung. To allay the fury of the raving, to administer to the wants of the needy and to prevent accidents to which a house of that description was particularly exposed, a watchman was commissioned to go round the hospital every half-hour till midnight. From twelve o'clock till morning, another keeper fulfilled the same



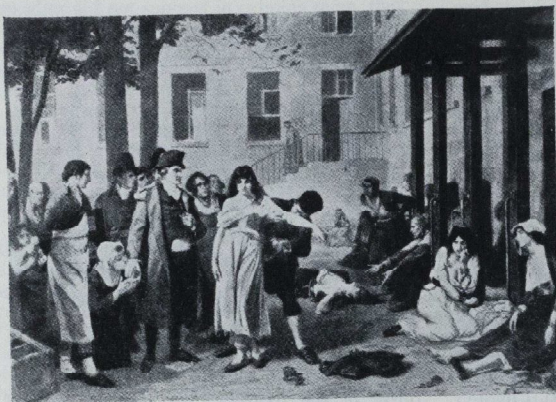
Psychiatry. Rotatory motion machine for the treatment of the insane. From "Cases of mental disease," by A. Morrison (1828).

duty. In the morning, the servants entered again upon their respective duties. Their industry was a condition of their service; and in order to be able to put an end speedily to any tumult or confusion that might happen, their presence at all hours of the day was indispensably exacted. The servants were under special injunction not to lay violent hands on a maniac, even in their own defence. A system of tactics carried on by signs was adopted in order to secure the momentary seizure and effectual arrest of the raving and furious madmen. In a word, the general government of the hospital resembled the superintendence of a great family, consisting of turbulent individuals whose fury it should be more the object to repress than to exasperate, to govern by wisdom than to subdue by terror."

A summary that would do credit to the administration of many a hospital to-day.

It is not my wish to indulge in a flow of anecdotes on Pinel's various achievements; but to quote from one or two of his own case histories may prove to be of some interest in illustrating his approach to different psychiatric problems. He recounts in *A Treatise on Insanity* a perplexing problem which was cleverly solved by the governess of Bicêtre:—

"Three maniacs, who all believed themselves to be sovereigns, and each of whom assumed the title of Louis XVI, were one day disputing their respective rights to the regal office and prerogatives, with more warmth than appeared consistent with their mutual safety. Apprehensive of the consequences, the governess went up to one of them and took him a little aside. 'How happens it' said she, addressing him with great gravity, 'that you should think of disputing with such fellows as those who are



'The visit of Dr. Pinel to the Salpêtrière, Paris in 1795, when he ordered the chains to be taken off insane patients'. From the picture by Robert Fleury in the Academy of Medicine, Paris.

evidently out of their minds: we all know well enough that your majesty alone is Louis XVI. Flattered by this attention and homage, this gentleman immediately withdrew, looking at his rival disputants as he retired with ineffable disdain. The same artifice succeeded with a second, who left the other in undisputed possession of his honours. In a few minutes no vestiges of the quarrel remained."

And on the treatment of a case of melancholia:—"The fanciful ideas of melancholics are much more easily and effectually diverted by moral remedies and especially by active employment, than by the best prepared and applied medicaments. But relapses are exceedingly difficult to prevent upon the best founded system of treatment. A working man, during an effervescent period of the revolution, suffered some unguarded expressions to escape him, respecting the trial and condemnation of Louis XVI. His patriotism began to be suspected in the neighbourhood. Upon hearing some vague and exaggerated reports of intentions on the part of government agents to prosecute him for disloyalty, he one day betook himself in great tremor and consternation to his own house. His appetite and sleep forsook him. He surrendered himself to the influence of terror, left off working, was wholly absorbed by the subject of his fear; and at length he became fully engrossed with the conviction that death was his unavoidable fate. Having undergone the usual treatment at the Hôtel Dieu, he was transferred to Bicêtre.

age, whom it seemed he had forgotten, and expressed a very great desire of having it brought to him. This awakened sensibility struck me as a favourable omen. The child was sent for and all his other desires were gratified. He continued to work at his trade with renewed alacrity, frequently observing that his child, who was now with him, altogether contributed the happiness of his life. Six months passed away in this way without any disturbance or accident. But in the very hot weather of Messidor (June and July) in the year 5, some precursory symptoms of returning melancholy began to show themselves. A sense of heaviness in the head, pains of the legs and arms, a silent and pensive air, indisposition to work, indifference for his child, whom he pushed from him with marked coolness and even aversion, distinguished the progress of his relapse. He now retired into his cell, where he remained, stretched on the floor, obstinately persisting in his conviction that there was nothing left for him but submission to his fate. About that time I resigned my situation at Bicêtre, without however renouncing the hope of being useful to this unfortunate man. In the course of that year I had recourse to the following expedient with him. The governor, being previously informed of my project, was prepared to receive a visit from a party of my friends, who were to assume the character of delegates from the legislative body dispatched to Bicêtre to obtain information in regard to Citizen—, or upon his innocence, to pro-

nounce upon him a sentence of acquittal, I then concerted with three other physicians whom I engaged to personate this deputation. The principal part was assigned to the eldest and gravest of them whose appearance and manners were most calculated to command attention and respect. These commissaries, who were dressed in black robes suitable to their pretended office, ranged themselves round a table and caused the melancholic to be brought before them. One of them interrogated him as to his profession, former conduct, the journals which he had been in the habit of reading and other particulars respecting his patriotism. The defendant related all that he had said and done and insisted on a definitive judgment as he did not conceive that he was guilty of any crime. In order to make a deep impression on his imagination, the president of the delegates pronounced in a loud voice the following sentence: 'In virtue of the power which has been delegated to us by the national assembly, we have entered proceedings in due form of law, against Citizen —; and having duly examined him, touching the matter whereof he stands accused, we make our declaration accordingly. It is, therefore, by us declared, that we have found the said Citizen—a truly loyal patriot and pronouncing his acquittal we forbid all further proceedings against him. We furthermore order his entire enlargement and restoration to his friends. But inasmuch as he has obstinately refused to work for the last twelve months, we order his detention at Bicêtre to be prolonged six months from his present time, which said six months he is to employ, with proper sentiments of gratitude, in the capacity of tailor to the house. This one sentence is entrusted to Citizen Poussin, which he is to see executed at the peril of his life'. Our commissaries then retired in silence. On the following day the patient again began to work and with every expression of sensibility and affection solicited the return of his child. Having received the impulse of the above stratagem, he worked for some time unremittingly at his trade. But he had completely lost the use of his limbs from having remained so long extended upon the cold flags. His activity, however, was not of long continuance, and its remission concurring with an impudent disclosure of the above well-intended plot, his delirium returned. I now consider his case as absolutely incurable."

Although the result of the treatment was not a long lasting success, this report indicates the extreme originality of Pinel's approach and the great lengths to which he would go in the attempt to achieve a cure. He was little in

favour of drugs, and on the usual methods of treatment by baths and purges, and the value of blood letting, he is even more sceptical:—

"The blood of maniacs is sometimes so lavishly spilled and with so little discernment, as to render it doubtful whether the patient or his physician has the better claim to the appellation of a madman."

On the 24th Floréal in the year 3 of the Republic (1795) Pinel was made Professor of Internal Pathology and Director of the Salpêtrière, where he commenced to introduce similar reforms to those he had introduced at Bicêtre. In the year 1799 Bonaparte came to power, and Pinel was made Professor of Medical Physics and Professor of Internal Medicine in the Faculty of Medicine. As a teacher he was much respected and in spite of the difficulty which he still found in talking in public, which often made his lectures awkward to understand, they were followed by a large and enthusiastic audience.

Fortune continued to smile on Pinel for many years affording him the luxury of a country house outside Paris. His wife, who had born him two sons (one of whom became a planter in Brazil, and the other Scipion Pinel who followed in the footsteps of his father) had died in 1812, after twenty years of marriage. He remarried in 1815. However, the doubts about him which had fostered in the latter days of the revolution had continued to grow, and when the Faculty of Medicine closed in 1822 for a few months because of anti-clerical disturbances, the opportunity was taken to dismiss Pinel with a number of others before its re-opening. His political views were still very suspect. He retired gracefully, his only remarks being apparently: "L'enseignement est-il assuré?". Blithely ignoring his financial position he refused any form of pension—though he had been at the Salpêtrière some thirty years. Only the devotion of his wife saved them from absolute poverty.

During his later years he had a number of cerebral attacks with apparently no unpleasant after-effects, but finally succumbed to bronchial pneumonia dying at the Salpêtrière on 20th October, 1826. Belatedly the Royal Academy of Sciences decided themselves to give him a magnificent funeral, a tribute to the achievements of a remarkable man.

REFERENCES

- DE SAUSSURE, RAYMOND French Psychiatry of the 18th Century, Ciba Symposium, Vol. II, 1950, No. 5.
SEMELAIGNE, LOUIS-RÉNE: Philippe Pinel et son oeuvre au point de vue de la médecine mentale.

aurelius

PATIENT TREATMENT

Anyone who has sat in a G.P.'s waiting-room will have heard the endless complaints about long waits, how the doctor didn't turn out when little Jimmy had a temperature of 99 one night, or how unsympathetic he was about that splinter, and how he didn't give them any medicine for this or that. Correspondingly one of the G.P.'s constant grouses over the years has been that much of his time is wasted by patients who either have nothing wrong with them, or whose complaints are so trivial that all they need is a couple of aspirins. Amidst all the hue and cry of discontent over pay and conditions, the Minister of Health has quietly introduced a campaign to encourage patients to treat their doctors more kindly. A leaflet entitled *Helping Your Doctor* has been sent out to all G.P.'s to display in their waiting-rooms, and this is to be followed up with press and television publicity. It sets out basic do's and don'ts such as: inform the doctor before 10 a.m. if you need a home visit; go to the surgery yourself unless absolutely incapacitated; understand that treatment does not necessarily mean having a medicine. Perhaps most significantly it states fairly and squarely that it is the doctor and not the patient who must decide whether a home visit is necessary.

This sort of publicity campaign seems to be infinitely more desirable than the idea that there should be a strict code of rules for patients' behaviour towards the doctor, and any offenders would be fined by the magistrates' court. This suggestion was seriously put forward by the barrister commissioned by the General Practitioners Association to explain and advise on the terms of service of the G.P.'s. Since patients can make claims against their doctors, they, it is argued, ought to be able to do likewise to patients who make unreasonable demands. If this were the case the doctor would come to be looked upon as some sort of policeman or traffic warden, issuing fines for over-staying your time or loitering. A much better deterrent for the thoughtless would be

some form of official censure, as has been suggested by the Middlesex Local Medical Committee.

Advice to the general public on how to make best use of the myriad public services available is all important if they are to run efficiently, especially with regard to an understaffed service like doctoring. That is why publications like the Consumers' Association recent *Ailments and Remedies* are welcome. People love to satisfy their morbid interest in disease and their bodies (witness the endless medical articles in the *Sundays* and women's magazines), though the ghoulish will find little to amuse them in this book. Unlike those Victorian home cure books which describe the horrifying dangers of sleeping in damp beds or wearing wet boots, *Ailments and Remedies* is terse and full of typical *Which?* good sense. It deals only with the most minor disorders which can be safely and effectively treated at home. In doing so it successfully debunks a lot of the popular pharmaceutical products such as tonics, slimming biscuits, cold cures etc., and points out the possible hazards of prolonged use of such drugs as phenacetin and aspirin. Readers will perhaps enjoy less the sections on the preservation of good health, for here they are told the value of exercise, the folly of smoking and excessive drinking, and that the only way to lose weight is to cut down calorie intake; but they will certainly benefit if they take heed. Throughout it gives advice, without being alarming, about what symptoms should be taken to the doctor, for example: Report to your doctor a change of bowel habit which persists or recurs, for instance, alternating constipation and diarrhoea".

Whilst the only real way to reduce the work load of the general practitioner is to add to their numbers, this cannot be done overnight, but in the meantime the patient can greatly ease the situation by not wasting the time and energy of the G.P.

Διάγνωση

by C. R. W. Edwards

A thirteen year old girl was admitted with a ten day history of sore throat, ear-ache, hoarseness of voice and general muscle aches and pains. She had been vomiting for two days before admission. The vomiting was more marked with solids. She had no abdominal pain and no diarrhoea. There were no urinary symptoms, no history of injury or unconsciousness and she had had no convulsions. She had had a cough for ten days but had had no haemoptysis.

In her *past history* she had had measles, mumps, whooping cough and recurrent bouts of tonsillitis.

In the *family history* the mother had had pulmonary tuberculosis when the child was six. Two weeks before the patient's admission the mother had had a similar type of illness with headache, sore throat, pyrexia, aches and pains and a stiff neck.

On examination she was a flushed, thin-faced girl with a temperature of 99°F. There was a right-sided facial palsy with obliteration of the naso-labial fold. The tongue was dry and coated; the throat was inflamed with a marked exudative reaction. The anterior cervical glands were enlarged. The ears were tender on examination and there was a slight grey discharge. The respiratory rate was 22/minute and the trachea was central. The chest was clinically clear. The B.P. was 110/70 mm. Hg., the pulse 110/minute, regular and good volume. The heart sounds were normal and there were no murmurs. The abdomen was soft and there was no tenderness. The liver and kidneys were not felt but the spleen was definitely palpable.

Her intellect, emotional state and behaviour were normal. She had no hallucinations or delusions. She had been sleeping well. There was difficulty in swallowing and a weak, nasal voice. On neurological examination there was neck stiffness and a positive Kernig's sign. The right facial paralysis was of a lower motor neurone type. There was weakness of both arms and legs which was more marked in the distal muscles. The reflexes were very sluggish on admission and absent on the following day. Both plantar responses were flexor in type. Sensory examination showed a glove and stocking anaesthesia. Two days after admission bladder control was lost.

Investigations:

E.S.R. 14 mm./hour; Hb. 111%; W.B.C. 5,300/cu. mm.; Blood urea 51 mg.%. Serum electrolytes: Na 135 m. Eq./litre; K 4.1 m. Eq./litre; Cl 82 m. Eq./litre. Urine: Protein trace. Scanty epithelial cells in the deposit. C.S.F.: Pressure and cell count normal. Protein 100 mg./100 ml. Chloride and sugar normal. Blood film: reported on as normal. Throat swab: no pathological organisms isolated. Nasal swabs: Staph. aureus isolated. Blood culture: no growth after 24 hours incubation.

One further investigation was made to confirm the diagnosis.

Answer P. 464

“... with East London there is no necessity to speak of history. This modern city, the growth of a single century—nay, of half a century—has no concern and no interest in the past: its present is not affected by its past; there are no monuments to recall the past; its history is mostly a blank.”

So wrote Sir Walter Besant in the first chapter of his book on East London in 1901. As he had already written with his usual verbosity on the better known areas of the town, his taste for history may of course have been flagging by this stage... but he does illustrate the feeling that the East End is simply an amorphous collection of backstreets, vaguely due to the Industrial Revolution and Dickens. The actual boundaries of the East End have been variously interpreted—the Thames is certainly its southern limit—it is usual to in-

THE EAST



END

clude Stepney, Poplar, Bethnal Green and Hackney. A recent London historian has commented quite justifiably that Shoreditch has more in common with Islington.

In fact the East End has provided notable landmarks from the start of London's development. The Roman road to Colchester ran where the Bethnal Green road now lies, and crossed the river Lea at Old Ford. Another highway joined the city to the Thames at Ratcliff, which was until the nineteenth century the only landing place for Stepney. All the land above the high tide marks was cultivated

from early times; the course of the river itself was not controlled.

The Domesday book mentions the manor of “Stibenhede” (Stepney) but other villages had also grown up by this time at Whitechapel, Hackney and Stratford-le-Bow. Bow Bridge was built during Queen Matilda's reign; the “Old Ford” had had a rather lethal reputation particularly when the Lea was in flood. A number of monasteries were built and although the best guildsmen aimed to work within the city walls, certain trades such as baking and brewing were developed in the East End. As for the countryside, Stow wrote: “everyman would walk into the sweet meadows and green woods, there to rejoice their spirits with the beauty and savour of sweet flowers, and with the harmony of birds.”

With the Reformation the first stage in the urbanisation of Stepney took place. The land belonging to the monasteries was appropriated; Wapping marsh was drained and the banks of the river were properly claimed. The Thames became far busier with the increase in trade and shipbuilding was started on the north bank... the hamlets of Wapping, Shadwell, Limehouse and Poplar grew up. The change in character of the area is perhaps indicated by the gibbet which was put up prominently on Execution Dock and remained there for two centuries as a warning to pirates and smugglers. But there were still fashionable houses by the river, and further north Bethnal Green and Whitechapel became pleasantly Georgian. Hackney remained the residence of noble people; and the country road along Mile End, which Pepys often used, was “no walk without a recreation at Stratford-le-Bow with cream and cakes”. A number of trades became particularly associated with the East End, such as cabinet-making and the world famous bell foundry in Whitechapel. The silk weavers moved into Spitalfields during the eighteenth century. At this time too a large number of immigrants arrived; overbuilding and overcrowding in the side streets were causing unfavourable comment... a situation which recalls parts of Paddington and Notting Hill today.

The law that all London port merchandise had to pass through the legal quays between London Bridge and the Tower only came to

an end at the start of the nineteenth century. The India and London docks were immediately built... the ruthless takeover of land which industrial progress demanded had started. Regent's canal, connecting London to Birmingham, was completed in 1812; Brunel's tunnel under the Thames, the first of its kind in the world, in 1843; a few years later the railways finished the job off. Although there was naturally more work available in the docks, it was not sufficient. Houses did not degenerate into slums so much as arise as such in the first place. Dickens made sense. The East End has been the subject of suitably altruistic appeals for as long as the Industrial Revolution itself. But the steps taken over rehousing unfortunately needed the devastation of the second world war to give the designers enough ground to play with. The results for the most part are severely functional but at least clean and sanitary.

What does it all amount to, as today's visitor, inevitably an outsider, looks around him? The only place where the East End actually exudes forcefully and honestly what it is really about, is the dockland. Here there is no need for the connoisseur to lament the absence of Georgian frontages, Chinese laundries and music halls... here and still changing are the guts of a city which depends in the end on the trade supplied by its river. For the rest considerable imagination will be required to summon the past and as much patience to enjoy the present. The pleasure of much in London lies in the fact that effort is required to discover it, and if this is doubly true of the East End then the rewards are worth it. Where else can you get the best Chinese meal in London (New Friends, Salmon Lane, E.14); the only Kosher meal (Bloom's, Whitechapel High Street, E.1); buy the freshest and cheapest shell fish (most street markets); enjoy the best river views (over page)? A limited number of museums offer attractions of a safer but often novel type: Geffrye Museum (historical exhibition of English furniture); Bethnal Green Museum (dolls houses and Spitalfield silks); three Hawksmoor churches (beautiful, two of them rapidly becoming museums)... and positively the worst street market in London, Petticoat Lane.



RIVERSIDE ENTERTAINMENT



ON his frequent nefarious visits to the stews of the East End, Dorian Gray rode hunched-up and muffled in the back of a hansom cab. The modern explorer in search of the riverside pubs of Dockland should venture trebly armed, with horseless carriage, keen nose for direction, and A to Z (an invaluable aid to olfaction).

In Tudor times the fishermen came up from Ramsgate to land their catch at Wapping Old Stairs. The **Town of Ramsgate** pub in Wapping High Street still stands at the top of these stairs. This is a quiet and friendly place, its terrace at the back overlooking the murky waters of Execution Dock. Pirates, smugglers, and many of Judge Jeffreys' victims perished here, left miserably hanging while the tides washed over their bodies. The infamous lawyer himself, unwisely slipping ashore for a quick drink (while fleeing the country in 1688), was caught and nearly lynched in this pub.

Directly across the water in Rotherhithe lies the **Angel** (Rotherhithe Street), 17th century smugglers' haunt. The décor is of more recent vintage but the view of Tower Bridge is quite without peer. Not far to the east stands the **Mayflower**, between the river and the vast Surrey Commercial Docks. The Pilgrim Fathers first set sail for America from this spot.

An early port of call on any East End trip should be the **Bunch of Grapes**, Narrow Street, Limehouse; for this pub, half-hidden close to the Limehouse Cut and the Regent's Canal Dock, can prove elusive later in the evening. This is the area of Penny Fields and China Town, formerly renowned for their opium dens and oriental brothels. Charles Dickens came to the Bunch of Grapes to write "Our Mutual Friend". The tiny balcony at the back of this narrowest of pubs commands a fine view down to the Isle of Dogs. If the tide is on the ebb, look for the sewer rats frolicking playfully among the jetsam at the water's edge. The intrepid may descend the ladder to the beach to watch their merry sport at closer quarters.

North of Cubitt Town, at the entrance to the West India Dock, stands the **Gun**, Cold Harbour. Lord Nelson was wont to visit this 15th century inn; he even fixed up a cottage for Lady Hamilton nearby. Follow the Admiral's admirable example and you will be rewarded by the finest panorama of the Thames in London. One brief word of warning—some of the natives are a little unfriendly.

The archaic Blackwall Tunnel leads south to Greenwich, and the **Cutty Sark** tucked away on Ballast Quay. The landlord and his wife will make you very welcome here, and the whitebait are splendid value at 5/6d. Close to the Royal Naval College stands the **Yacht** (Crane Street), a sophisticated pub which makes a convenient halt on the return journey from Chislehurst to Bart's. Charles II, an accomplished hedonist, was a regular visitor here attracted perhaps by the excellent variety of delicious sandwiches.

Conclude if capable at the **Prospect of Whimby**, Wapping Wall. The Prospect is just famous and invariably crowded. The resident Hawaiian group arrives nightly at 8.30 p.m. and the company should be in good voice by the time you get there. At low tide you can watch the barman retrieve the glasses from the mud below the balcony. If you book ahead it is possible to have a pleasant meal upstairs at a reasonable price. If accompanied by Aunt however, you would be wise to finish before they become too enthused below; that is unless she's deaf.



WINE and song are proverbially inseparable and no doubt drinking people have been singing in pubs for as long as pubs have been. As music pubs became more popular, so the Music Halls developed as a more elaborate form of entertainment. Now that the Halls are dead and gone, the music pub is undergoing a vigorous recrudescence. Anyone who thinks that all entertainment is canned these days will soon be disillusioned by taking a glass or two at these lively East End pubs, more and more of which are beginning to offer entertainment.

Perhaps the most famous of them is the **Waterman's Arms** in Glengarnock Avenue, Millwall. Run by Daniel Farson, it has more of a music hall atmosphere than any of the others; its walls are adorned with the most splendid Victorian theatrical posters, and the magnificent platform has been transported piecemeal from the old Collins' Music Hall in Islington. A shock-headed blonde fellow competes with incredible energy, and the songs, anything from oldies to Tom Jones, are sung with great gusto by him, guests and the audience.



Still in Millwall is the **City Arms**, Westferry Road. "Une grande welcome to les clientele!" reads the notice on the wall, and the young customers are accordingly cultured and with-it, ('bent' as they say in the Waterman's Arms). Entertainment has only been going here for two years, but the slick show includes such varied fare as comedians, singers and female impersonators, all in a dark smoky atmosphere.

Further east is the **Iron Bridge Tavern** in the East India Dock Road. A big, brown bare hall bounces to the sound of a very lively trad band. The audience, all ages here, is gay and warm, and anything goes from Chelsea stockings to platinum blonde (they smell deliciously of their sixpennyworth of Chanel or Je Reviens from the ladies' cloaks!)

Still further east is the **Boleyn** in Barking Road, E.16. A real family atmosphere pervades this emporial footballers' place, and the rhythm and blues style group produce a pleasing sound—you might even find a seat here.

In Bethnal Green is the **White Horse**, Burdett Row, one of the first pubs to instal a band in the bar. The resident singer, who looks more like a bank manager, sings sentimental numbers backed by a definitely un-beat band including a sugary electric organ. Friendly and small—a real local. The **Green Gate** in Bethnal Green Road is bright and brassy, doesn't liven up until lateish. Equipped with a very smart platform, the group play current pops and have a jolly, round-faced vocalist attired in a very natty D.J.

These are just a few of the many East End entertainment pubs. It's easy to find the others by asking the customers in one pub where else they go, and the evening will rapidly be filled. The business is in a constant state of change; bands and entertainers move on, new pubs open up and old ones disappear. After a long drive to two of the pubs we intended visiting, all we found was a deserted demolition site, apparently only a few months old. Finally one cannot write about entertainment pubs without mentioning the Old Kent Road, an area rich in such places. We visited the **Thomas à Becket**, which has a very professional jazz trio, singers and two brothers who are quite the funniest and slickest comedians we saw. A glass case contains the gloves which Dave Charnley wore to win his title, and upstairs is a training gym for boxers.



When the clichés had to stop

A November evening, age 12, taking a forgotten umbrella to a favourite maid. She lived in a housing estate in Poplar. Mist, street-lamps, wind. Her mother peered round the door; primitively, like a Thurber character. I said my bit and ran, but on the edge of the estate I paused and took it in: the kids whizzing by on bikes, the men returning from work, the lights going on, a family at high tea like a stage. I had a sense of freedom and also, of belonging. It was my first experience of the East End and I vowed to explore it one day, to seek out its message.

But it has not worked out like that. My attempts and the resulting experiences have become progressively more stereotyped (—until the last, that is). Back I would come aglow from, say, Petticoat Lane, but in the middle of describing it to a friend, I would suddenly discover that I was only churning out the same



St. Anne's Church, Limehouse

stock description I knew before I started. I had added nothing. Nothing whatever, in fact, had happened.

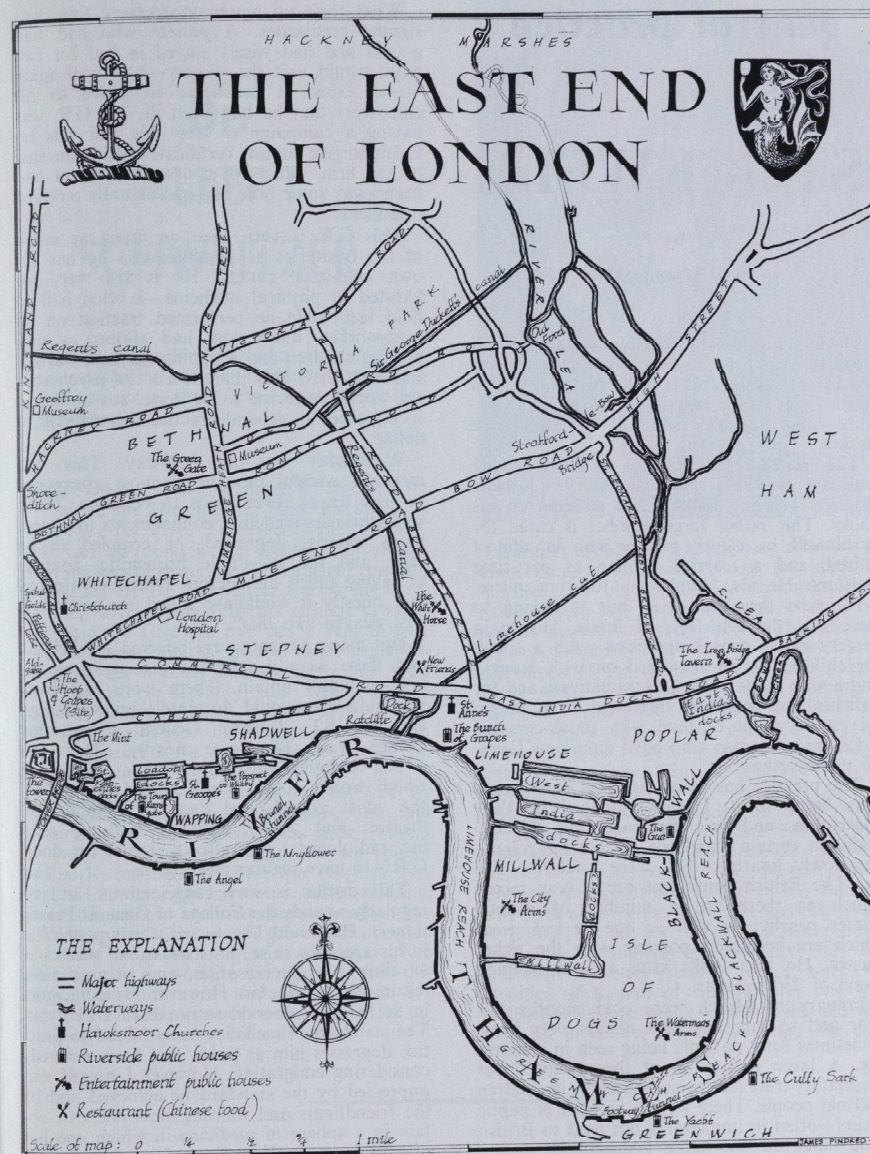
I blame the writers, myself. It's they who fog up one's mind with these preconceptions. From Mayhew to Mankowitz, they never take the jellied eels as read. Geoffrey Fletcher, for example, in "The London Nobody Knows", seems to have lost contact with reality altogether. He writes of Jack the Ripper as if he were a sort of Byronic Santa Claus, of Peabody Buildings (those machines for dying in, as Le Corbusier called them) as if they were castles in Spain. If he went to Hell itself, I'm sure he'd come back cooing about the quaint old iron-work of the furnaces.

From all this, *ab omne hoc*, that punch-up on Saturday night was a blessed release—a disintoxication from the stereotypes, a communication at long last with truth—

in the east end rose the moon
over Shadwell over Bellamy's Wharf
and pale on mud the silver worms
and grey on swans the china dust

is it real do people die here
all night like the falling snow
smooth and even formed the clichés
over Stepney and the Isle of Dogs

in thy cemetery of cranes
thy painted marsh thy markets
we but found what we were searching
in that explosion of The Gun.



general practice in STOCKWELL

by
Sue Macdonald

During my three months on the Special Departments, I found time to visit a general practitioner once a week. The practice was in South London—Stockwell and Clapham area—within about a mile radius of Stockwell tube station.

The general practitioner, a fairly young graduate of Bart's, had inherited his father's practice. He has about 5,200 patients on his books. This rather large number is cared for by himself, his elderly partner who has almost retired, and a married woman as part-time assistant. He also employs a full-time nurse.

He runs three surgeries, but is having to close one through lack of funds. His main surgery has a consulting room—with a couch for children to be examined on with mum—and a side room for full examinations, and for patients just requiring treatment from nurse; this saved a lot of time with much-corseted ladies and old men who have numerous layers of underclothes.

The practice has many Africans and Jamaicans living in it. I was impressed by their cheerfulness and their often successful efforts to maintain certain standards despite the minute and lowly quarters they were forced to live in. The British contingent are a very mixed bunch as there are a number of council estates nearby, as well as one or two areas which are becoming popular with the richer classes. He also looks after an old people's home of 230 patients.

January to March were cold months this year and so surgeries were always very busy, sometimes forty patients being seen in a morning. A large proportion of these were upper respiratory tract infections, especially in children and old people. There were a number of peptic ulcers—often in immigrants not used to British food—and the inevitable gynaecology.

What took up much unnecessary time was signing certificates. A patient who had had a cold and had wisely stayed in bed for two days, would visit the surgery—now well again—and expect a certificate to prove to his employers that he had been ill. My G.P. was having a campaign to stop this and was refusing to give out any certificates until requested by the firm—unless of course the patient had been away some time and had actually received treatment.

This G.P. is very keen on doing as much of the obstetrics as possible, and he has his own ante-natal clinics. He is also very interested in physical medicine—I often had to hold feet while he performed traction on an over-worked mum who had slipped a disc lugging children and shopping up some narrow stairway. Inevitably there is a lot of psychiatric and social medicine to be done, but as this is so ingrained in general practice it is difficult to define.

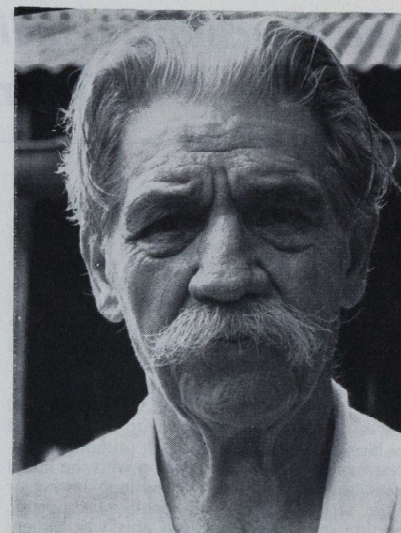
Wednesday was his half-day. This was rather a wishful thought as most afternoons he had six or seven visits to be done. There was a measles epidemic, confinements to attend, many elderly, depressed, or crippled to be seen, and the inevitable bronchitic—contribute at having called the doctor—"I'm sorry doctor, but 'onestly it would've killed me to go out wiv weaver like this".

Not many patients were referred to hospital, and these were usually for investigations the G.P. couldn't obtain. There were two local hospitals who would do simple investigations, and the S.E. London General Practitioner Centre was also quite nearby. This was a self-contained building with a path. lab. which would collect samples and do all but the most complicated tests, a minor ops. theatre, and X-ray facilities with a visiting radiologist; and also a room for local G.P.'s to have regular meetings in.

This doctor is very conscientious, and he regularly attends the College of General Practitioners. He would like to see a group practice in his area—to raise the standard of medicine, to allow for specialisation, and to give more leisure to the doctor. However his colleagues in the neighbourhood are not keen about this. The standard of medicine he is forced to practice depresses him at times, and he is seriously considering emigrating. However I myself was impressed by the standard he achieved and by the friendliness and thoroughness one can obtain in a sphere of medicine in which one has often known one's patients from birth.

Dr. ALBERT SCHWEITZER

We asked James Pindred, who spent nearly a year working at the Lambaréné Hospital in Gabon, to write about one aspect of the life of its founder.



THE Doctor's guiding principle, and that on which the Hospital has been developed, is *Reverence for Life*. The essence of this principle can be found in the teachings of all the great masters of mankind. This ancient concept, re-phrased by Dr. Schweitzer during his early days in Africa, states fully his attitude towards everything in Creation that has a Will to live, whether man, mouse, insect, micro-organism or plant. In that all that lives has this Will, all is united in Creation and stems from a common source. A man, if he be truly a man, has the intelligence to realise his dominion over organic life on earth, his dependence on it and his responsibility towards it.

Dr. Schweitzer has explained that just by living we kill countless organisms, and that to survive we must kill countless more. This is in the very nature of things and we cannot escape it; but here is where our responsibility begins, for what right have we to inflict suffering, or to kill without necessity anything which has a Will to live? Of course the whole question is one of judgment in what is necessary. Not all who visit or work in the Hospital find this easy. Constant care and watchfulness are needed. This care can be seen reflected in the building and running of the Hospital.

Another aspect, evident to those who stayed some time at Lambaréné, was the spirit of sharing. Our clothes, books, stationery, even money, were not considered our own; if we needed money we asked for it. This allowed a much wider freedom. The doctor has taught that much of the world's anxiety and unhappiness stems from one thing only, claiming in one form or another: my life, my land, my money, my troubles, even my wife. We lay selfish claim to everything, when none of it in truth is our own. This is ignorance of the abundance of creation.

As for the Doctor himself, the living out of the principle *Reverence for Life* was his constant aim. He carried this principle over into his dealings with people. He showed endless kindness and generosity to those who came to him from all over the world. It was this giving of himself to all and everything around him that was so impressive. He gave his full attention to every detail. These were the qualities of a man of true stature; one who realised early how much he was given and who gave all in return without counting the cost.

The Psychiatric Indications for Termination of Pregnancy

Mr. Justice McNaughton put the legal position of termination of pregnancy in *Rex v. Bourne*, 1938, when he stated that "if the doctor is of the opinion on reasonable grounds and adequate knowledge that continuation of the pregnancy would probably make the woman a physical or mental wreck, the act is lawful". The indications in physical disease are now well recognised but this is not so in psychiatric disorders and, too often, conjecture and impression have been the guide. Most normal women can manage to cope with an unwanted or illegitimate pregnancy and, although psychiatric symptoms often develop with the initial stress, these are unlikely to be long lasting or cause serious mental ill-health. Therapeutic abortion seems to be justified only where there is both (1) an abnormal psychiatric constitution and (2) exceptional severity of the situation arising from the pregnancy. Because individual psychiatrists and gynaecologists in the United Kingdom and the United States are unlikely to acquire a large personal experience, there is at present a dearth of publications in the English language on this subject and we have therefore investigated 57 patients who have been referred for termination of pregnancy on psychiatric grounds between July, 1961 and December, 1964.

Psychiatric Assessment

Patients are assessed by normal psychiatric methods. The mental state at the time of the examination is an insufficient guide and the past history is equally important. Particular account is taken of the adequacy of the personality, the patient's response to previous stressful situations and the extent and duration of psychiatric symptoms. Social factors are inextricably bound up with any psychiatric decision and a note must be made of the support she is likely to get from her husband or parents, the number of other children in the family and their living conditions. Not only must the patient's physical health be known, but the family's too. Psychiatric symptoms are more likely if, for example, her husband is asthmatic and she already has a child who is a mongol.

The Decision about Termination

In a few patients, the decision to terminate is straight-forward but, in the majority, a summation of many factors allows an opinion to be made. Those where it is straight-forward include certain schizophrenics. It should, for example, be advised where a schizophrenic psychosis has developed or worsened since the onset of the pregnancy or, possibly, where a previous pregnancy has aggravated the illness. On the other hand, the possibility of a puerperal depression is not usually sufficient reason for termination. Where depression occurred in a previous pregnancy or puerperium the chance of a recurrence is only about 1 in 7 and the prognosis is quite good. Furthermore a similar depressive illness may be precipitated by the termination itself. Although suicide is uncommon in pregnancy, a threat of suicide is most difficult to assess. Incarceration in hospital may protect the patient but this might have an adverse effect on her mental state.

In this investigation, most patients were seen by us completely independently and it is of interest to note that we were in complete agreement about the desirability of termination in all cases except one.

Results

Therapeutic termination of pregnancy was recommended in 30 of the 57 patients seen. In 6 patients there existed a real threat of suicide; another was a severe schizophrenic who relapsed after two previous confinements. The other 23 had a combination of several serious psychiatric factors, in some cases aggravated by deplorable social circumstances where it seemed likely that permanent mental ill-health would result. The following are two examples:—

Miss E.R. was illegitimate and aged twenty-five; she had a family history of psychiatric disorder, her mother having been treated in a mental hospital several times. The patient had an unstable hysterical personality with extreme lability of mood and a tendency to severe depression when she drank gin and "scrumpy" heavily. She had been admitted to various

by David Williams
and Michael Pare

mental institutions and twice made serious suicidal attempts. She was already under care at St. Bartholomew's on a high dosage of antidepressants when she became pregnant. There was also left optic atrophy which had been attributed to disseminated sclerosis or alcohol.

Mrs. J.C. was aged twenty-four and had three children. Since the birth of the last child, shortly following which her husband was sent to jail for two years, she had been unable to cope. From being a competent housewife and good mother, she became so depressed, retarded and unkempt that the children had to be sent into care and she herself was admitted to a mental hospital. When seen she was still suffering from a reactive depression, would sit staring empty for several hours and could not look after herself properly and the home and family even less. We thought that continuation of the pregnancy would lead to permanent disability.

Of the patients who were not terminated, there were several whose circumstances excited our sympathy but in whom termination could not be justified on medical grounds.

Follow-up of Those Terminated

Of the 30 patients who were terminated, two had gone abroad and were lost to follow-up but we were able to see the remaining 28. The psychiatric status of most patients had improved and all were pleased that the operation had been done, though three had fairly severe feelings of remorse which lasted over six months. Transient feelings of guilt were common. We found that feelings of guilt were more common in the "motherly" type of patient but they were uncommon in the immature, hysterical or psychopathic.

Follow-Up of Those not Terminated

We were surprised to find that only 12 (44 per cent) of the 27 patients in whom termination was refused, continued to term and kept the baby. In such a small series, its significance cannot be decided but in 15 (56 per cent), the baby was aborted, stillborn or adopted. Information had to be obtained from

relatives and general practitioners about 9 patients who would not be followed up because of antagonism to our original refusal to terminate, but we were able to see all the others personally. One patient had an illegal abortion and, afterwards, an endogenous depression became worse and she committed suicide. Another, who kept her baby, seemed to suffer as a result, developing psychiatric symptoms for which she has since been under continuous treatment.

None of the 3 patients whose babies were adopted would be seen personally. Two suffered considerable distress over the adoption and another, who was unmarried, fostered her child and visited it regularly for six months before having it adopted. From their own doctors' reports, it seems that there was emotional conflict but no permanent psychiatric disorder.

Conclusions

Recommendation of termination of pregnancy is one of the most worrying tasks in clinical psychiatry. No new knowledge has emerged from the study of this short series but it has at least given the investigators a clearer understanding of the problem. In looking for evidence of an abnormal psychiatric constitution and an exceptionally stressful situation arising from the pregnancy, it is important to be wary of the histrionic, over-dramatic patient. Where termination is recommended, it is incumbent on the psychiatrist to keep the patient under his care afterwards. Reactive depressives do better after abortion than endogenous depressives who can be made worse, and we agree with Myre Simm of Birmingham that a previous history of puerperal depression is generally not a ground for interference.

A significant number of these patients came for a second opinion from other hospitals whence they returned for treatment. At St. Bartholomew's, in the past five years, there have been psychiatric grounds for about one third of the pregnancies terminated.

We wish to thank Mrs. O'Neil, psychiatric social worker, for her enthusiastic help in this investigation.

medicine in literature

NACHTCAFE

by **Gottfried Benn** (1886-1956)

with translation by Michael Hamburger

824: Der Frauen Liebe und Leben.
Das Cello trinkt rasch mal. Die Flöte
rülpst tief drei Takte lang: das schöne

abendbrot.

Die Trommel liest den Kriminalroman zu Ende.

Grüne Zähne, Pickel im Gesicht
winkt einer Lidrandentzündung.

Fett im Haar
spricht zu offenem Mund mit Rachenmandel
Glaube Liebe Hoffnung um den Hals.

Junger Kropf ist Sattelnase gut.
Er bezahlt für sie drei Biere.

Bartflechte kauft Nelken,
Doppelkinn zu erweichen.

B-moll: die 35. Sonate.
Zwei Augen brüllen auf:
Spritzt nicht das Blut von Chopin in den Saal,
damit das Pack drauf rumlatscht!
Schluss! He, Gigi!—

Die Tür fließt hin: ein Weib.
Wüste ausgedörrt. Kanaanitisch braun.
Keusch. Höhlenreich. Ein Duft kommt mit.
Kaum Duft.
Es ist nur eine süsse Vorwölbung der Luft
gegen mein Gehirn.

Eine Fettleibigkeit trippelt hinterher.

824: The Love and Life of Women.

The 'cello has a quick drink. The flute
belches throughout three beats: his tasty
evening snack.

The drum reads on to the end of the thriller.

Green teeth, pimples on his face,
waves to conjunctivitis.

Grease in his hair
talks to open mouth with swollen tonsils,
faith hope and charity round his neck.

Young goitre is sweet on saddle-nose.
He stands her three half pints.

Sycosis buys carnations
to mollify double-chin.

B flat minor: sonata op. 35.
A pair of eyes roars out:
Don't splash the blood of Chopin round the place
for this lot to slouch about in!
Hey, Gigi! Stop!

The door dissolves: a woman.
Desert dried out. Canaanite brown.
Chaste. Full of caves. A scent comes with her.
Hardly scent.
It's only a sweet leaning forward of the air
against my brain.

A paunched obesity waddles after her.

(From *Primal Vision*, Bodley Head Ltd., and *Modern German Poetry*, MacGibbon and Kee.)

DIE SCHÖPFUNG

(The Creation)

by **Heinrich Heine** (1797-1856)

with translation by Ernst Feise

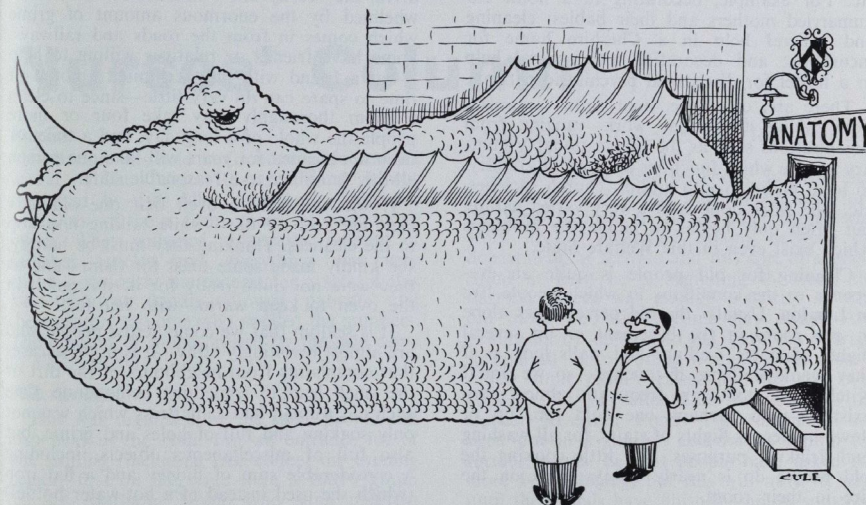
Warum ich eigentlich erschuf
Die Welt, ich will es gern bekennen:
Ich fühlte in der Seele brennen,
Wie Flammenwahnsinn, den Beruf.

Krankheit ist wohl der letzte Grund
Des ganzen Schöpferdrangs gewesen;
Erschaffend konnte ich genesen,
Erschaffend wurde ich gesund.

The real cause for the creation
Of this my world, I will confess,
Was deep within me a distress,
Like flaming madness, my vocation.

So it appears: disease was then
The cause for that creative urge,
Creating was the fiery purge,
Creating I grew well again.

(From 'Heinrich Heine: Lyric Poems and Ballads', published by University of Pittsburg Press.)



'I TOO WAS INCLINED TO DISMISS IT AS A LEGEND UNTIL THIS ONE WAS
DISCOVERED IN THE INKY DEPTHS OF THE GLOUCESTER HALL POOL'.

do you do this?

Having spent some very enjoyable (and hard-working) holidays "work-camping" in Austria I decided—once long holidays and the opportunities for work-camping abroad were over—to do some work of a similar kind in London. Since I had been to camps run by the United Nations Association, I naturally joined the work group attached to this organisation.

There are several of these groups in London, and the work done consists mainly of 'Blitz-cleaning', i.e., thoroughly cleaning the often filthy rooms of old people. Painting and decorating for old people is also done and in addition work for various societies, homes, etc. For example, decorating in a home for unmarried mothers and their babies; cleaning and general help in a Cheshire home for incurables; and decorating and general help in a hostel for discharged psychiatric patients.

There are, of course, many other organisations which do similar work—ranging from organisations such as the International Voluntary Service which functions all over the country, to local bodies, youth groups, church societies, etc. The work done is of a very varied nature, but often only begins to tackle the problems which exist even in this Welfare State.

Cleaning for old people is quite an eye-opener to the conditions in which people live in London. Usually the old person lives alone in one room in the basement or up several flights of stairs. Ceilings and walls look as if they would collapse if touched—so we don't! Kitchen and toilet are frequently almost non-existent—with perhaps one cold tap, up or down numerous flights of stairs, for all washing and drinking purposes. The little cooking the old people do is nearly always done on the fire in their room.

The rooms are not so much filthy as "dusty"—but as the dust is the accumulation of about twenty years (or so it seems), it is pretty hard

8. WEEKEND "BLITZ-CLEANING"

by SUSAN JAMES

to remove. What makes the job more difficult is the vast array of ornaments and pictures usually in the room—these are perfect resting places for dust. The old person seems to live in a very small area near the fire (there is always a fire, whatever the season) and leaves the rest of the room to the furniture, ornaments and dust. We usually try and leave them in relative peace in this small area—and do all our scrubbing and dusting around them—since if they only have one room, there is nowhere they can go to escape our upheaval.

The old people may be quite willing to do a certain amount of cleaning themselves—but through illness, general weakness and lack of drive, they easily allow themselves to be overwhelmed by the enormous amount of grime which comes in from the roads and railways. Some have friends or relatives willing to help—but a friend with only a limited amount of time to spare can do very little—since to clean a room thoroughly may take four or more people the whole of a long day, and a toilet or oven not cleaned for years will take one person all day to reduce to a reasonable state.

It was in such an oven that one old lady kept her feet all day—while talking non-stop to the cleaners. Thinking they must be hungry, she kindly made some toast for them—and as they were not quite ready for it, she put it in the oven to keep warm—with her feet!

It is seldom that we come across people who are almost revoltingly filthy—it is in these cases that complaints from neighbours of the dirt or the smell lead to something being done. One such old woman had a mattress which was not only soaking and full of holes and grime, but also full of miscellaneous objects, including a considerable sum of money and a flat iron (which she used instead of a hot-water bottle!)

Of course the old people have to give their consent to having their rooms cleaned—but it may be very grudging consent and the cleaners

have to put up with grumbles and moans all day. Others get their days mixed up and forget all about the visit of the volunteers and are quite put out when they arrive.

Most seem genuinely pleased to have anyone come and do anything for them, but one suspects they feel rather injured in their pride that they should need to be helped at all, and may be full of excuses for the state of their rooms. They may try and show their gratitude in some way. One old man pressed us to help ourselves to his books—which included several James Bonds! Another old couple produced ample draughts of whisky all round as we said goodbye!

There certainly are problems among these old people—and so little is really done by merely removing a few layers of dirt. Not only do they live in shocking conditions, but most seem to live lives entirely devoid of interest and enjoyment, without television and nearly always without radio, seldom going out and rarely being

visited, they spend all day sitting and dozing—often eating practically nothing.

Ideally we would like to go on visiting all those people for whom we clean, but this is impossible—not only because of the number of old people in relation to the number of volunteers, but also because few young people have the inclination to tie themselves down to regular visiting. Frequent changes of accommodation by volunteers (many of whom are students), and long vacations away from London, also produce difficulties here.

It is obvious that even in a Welfare State there is need for far more community spirit—relatives should be more willing to look after these old people, and if there are no relatives nearby, neighbours ought to do far more to help.

In better accommodation, with home helps, meals-on-wheels, and friends or relatives to visit them, these people would live reasonably enjoyable lives. Unfortunately the present state of affairs is likely to continue for many years.

Nurses' Column

Bazaar

A Bazaar was held in Gloucester House Hall in aid of The Cancer Research Fund. It was organised by Jill Allen and Anita Durrance with lots of help from their set and many others. They collected a fantastic amount of saleable articles and everything was very cheap—obviously the criteria for a sale of this kind. Matron kindly allowed patients and their visitors to come who swelled the numbers. The amount of money raised by the sale came to £220 7s. 5d.

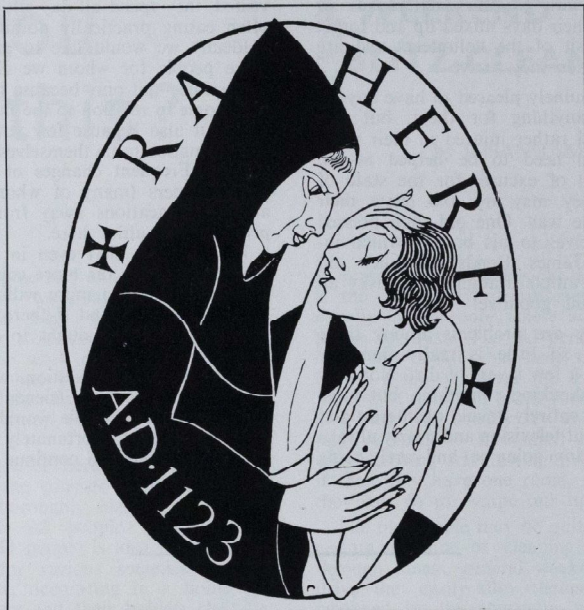
Folk Evening

This was organised by the same people and also held in the Hall. For an entrance fee of one shilling (including free coffee) the evening began—first on the stage were a Bart's group led by Margaret Noble who sang pleasant folksy songs. Nick Arnett from London House also came and two artists currently appearing at Bunjies Coffee Bar and Les Cousins Club in

Greek Street—Al Stewart and Geoff Pritchard—gave their services free.

As always on these occasions, it seems that only nurses and a few medical students turn up. What happens to all the other people who work in this Hospital? Mixing between the departments is terrible and this sort of evening could at least be a beginning to break the barriers. There was enough publicity so why did those who didn't come stay away? Any comments by those who did have the courage to face all those women would be welcome.

The total money raised for the day was £234 7s. 4d. of which £200 has gone to the Cancer Research Fund. The remainder has been put in a deposit account as capital for further events. Several people have asked for more Folk Singing, but this will have to wait until their finals have finished—unless someone else will do the organising. The set also hope to have a beat party in Chislehurst Caves for the same fund.



From an engraving by Eric Gill commissioned for the cover design of St. Bartholomew's Hospital Journal in 1937.

The Christmas Card, 1965

Christmas Card Order Form (BLOCK CAPITALS please)

No: of cards required.....

NAME:

Cost f. s. d.

ADDRESS:

Cards at 4s. per doz.
 Postage, 1st doz. 8d.,
 each additional doz. 6d.
 (Orders over 5 doz. post free)
 TOTAL

Please enclose remittance with order, addressed to The Manager, The Journal, St. Bartholomew's Hospital, London, E.C.1. Cheques and P.O.'s should be made payable to St. Bartholomew's Hospital Journal.

Signed

*It took me about
 five minutes
 three pounds
 and one
 handshake
 to open an
 account with
 Barclays*



The five minutes were mainly spent in writing a couple of specimen signatures and in giving the name of a suitable reference. The three pounds—all I could bank at the time—was received with a cordial handshake and I was made to feel welcome. Nothing stuffy about Barclays. You don't believe me? Try 'em.



BARCLAYS BANK

Money is our business



Penguin Reviews

THE SMALL ACRE

Poetry and Experience, by Archibald MacLeish. 8s. 6d. *Literary Criticism*.

Most of us are familiar with the experience of being moved by art in some form, of having our numbed emotions called to life, but when we try to explain why, words usually fail us: the music, the poem remain, imposing sudden meaning on the chaotic contradictions of existence. "To carry experience itself into the heart is an extraordinary achievement, an achievement neither science nor philosophy has accomplished." Yet art, and poetry in particular, has done this. How it has done it is the subject of "Poetry and Experience".

Following in the august footsteps of I. A. Richards, to whom he dedicates the book, Mr. MacLeish tries to set down the nature of poetic experience, to take us into the creative process and to advance his theories on poetic technique. How does experience turn into poetry in the first place? Mr. MacLeish invokes the authority of Lu Chi, poet and general, to answer. The poet, says Lu Chi,

Taking his position at the hub of things contemplates the mystery of the universe;

He feeds his emotions and his mind on the great works of the past. Moving along with the four seasons, he sighs at the passing of time;

Gazing at the myriad objects, he thinks of the complexity of the world.

He sorrows over the falling leaves in virile autumn;

He takes joy in the delicate bud of fragrant spring. With awe in his heart he experiences chill;

His spirit solemn, he turns his gaze to the clouds. He declaims the superb works of his predecessors;

He croons the clean fragrance of past worthies. He roams in the forest of literature, and praises the symmetry of great art. Moved, he pushes his books away and takes the writing brush, that he may express himself in letters.

The poet does not, then, generalise or explain, he "captures experience whole". A poem "cages the world with all its complexities upon it. It takes experience as experience stands there". In Lu Chi's words

We enclose boundless space in a square foot of paper:
We pour out deluge from the inch space of the heart.

What means, then, does poetry employ to perform this magic? The first half of the book is taken up by Mr. MacLeish's explanation of *how* poetry means so much.

The most striking quality of poetry, sound, is taken first. Few readers will remain unconvinced of the importance of the sound of words (as distinct from their value as ideas or signs), including most of the conventional marks of poetry: rhyme, rhythm, onomatopoeia, assonance and alliteration. Mr. MacLeish quotes the poetry of James Joyce and Dylan Thomas and a well-known passage from "Ulysses". Just as a regular and complex pattern of sounds may produce a poem, a whole more beautiful than its parts, so a structure of meanings may produce more than a simple summation of separate meanings. Mr. MacLeish puts it: "What is meant is something which is not quite sayable, and yet has it not been said?" Stated poetically, the obvious and banal can become meaningful and charged with emotion. We see again, as if for a first time, what we thought we knew. The poet speaks in images which capture in their conjunctions terrible and marvellous realities.

Arguing closely, and quoting many well-known poems in support of his argument, Mr. MacLeish concludes that it is by this coupling of significant images that poetry achieves its power—"by leaving a space between one sensed image and another where what cannot be said can be". In claiming this, he goes against a massive array of authority—but I feel he has gone one better. I find his case more convincing than those of the authorities he cites (notably Richards himself), and it is stated with an elegance and humour rare in literary criticism.

In the second half of the book, he expands his ideas in looking at the work of four poets.

As an example of the juxtaposition of images at its clearest, he takes the poetry of Emily Dickinson, a private world, inward looking into loneliness and death:

This Consciousness that is aware
Of Neighbors and the Sun
Will be the one aware of Death
And that itself alone
Is traversing the interval
Experience between
And most profound experiment
Appointed unto men—
How adequate unto itself
Its properties shall be . . .

Further chapters follow on poetry as a political weapon (Yeats), poetry used in an attempt to transcend life (Rimbaud), and a final chapter on Keats which surprised and delighted me.

Does Mr. MacLeish succeed in telling how the poet "traps Heaven and Earth in the cage of form"? Perhaps his own words answer most appropriately:

The implications of all this are helpful. Whatever science and philosophy may conclude about the mysterious relationship between art and emotion and the power of the one over the other, there would seem to be, nevertheless, a small acre here in which the rest of us may walk around with a modest confidence that something interesting can perhaps be observed.

Barry Cavell.

BORN IN THE BOIS

Pedigree, by Georges Simenon. 5s. 0d. *Crime*.

The theme of this masterly book is people, their moods and idiosyncrasies, perversions and prejudices; that which divides and that which unites—the story revolves around those subtle barriers between the 'haves' and the 'have nots', commonly known as class. The scene is set in Paris in the early years of this century.

As one expects from Simenon, better known for his Maigret series, the book is utterly French: from its description of ruthless poverty to the shamelessly erotic. It traces through the formative years of a young boy, an only child, from his birth in 1903 to the armistice of 1918. The style is reminiscent of Pasternak in *Dr. Zhivago*, but the narrative tends to suffer at the expense of the character studies. Elise Mamelin, highly strung and consumptive, is always submerged by circumstance; a brother is alcoholic, one sister dies slowly in heart failure while another ends her days in a lunatic asylum. Her husband of middle class background has met ill luck in his business. Finally the pathetic figure of Roger Mamelin whose young mind wrestles with the intricacies of his family life; promis-

cuity cannot substitute for the love which had been denied him at home. The story ends with Roger, spoilt and misunderstood, not yet sixteen years old.

Although refusing to commit himself we are reading what is essentially an autobiography of Simenon's childhood. This in part explains why the book bursts into life after some 170 pages when he starts to recall his earliest memories. Thereafter one is completely absorbed, not least by the frankness of his description—indeed it would be an uninspired reader who could not detect more than a mere framework as being autobiographical.

This book can be thoroughly recommended. Don't ignore it because you can't stand Maigret. Of Simenon's work it stands quite alone.

J. H. Casson.

WHEN THE GAS RUNS OUT

The Consumer Society: A History of American Capitalism, by Peter d'A. Jones. 6s. 0d. *Economics*.

"God hath shifted a nation that he might send choice grain into this wilderness". This offers a simple explanation for the development of the wealthiest nation in the world. It was uttered by William Stoughton in 1688. Stoughton was talking about the United States. (Later he was to be the chief justice at the Salem witch trials).

But how do we explain this extraordinary economy? Why not Australia? Or Brazil? Or, more worrying, why did Britain not maintain her lead in the industrial revolution? What happened to all our knowhow, trained labour force, capital? What has brought the concept of planning back into British political respectability?

Certainly the U.S. economy impresses. In 1950, for example, 17.8 per cent of all families and unattached individuals in the United States received under \$1,000 a year and 2.5 per cent received \$10,000 or more. Twelve years later, 15 per cent received over \$10,000 and only 8.5 per cent received under \$1,000. Over the same period the average income has gone from \$4,444 to \$7,262. Although some liars can figure, figures don't lie. No wonder Bernstein's kids wanted to be in America.

Dr. Jones divides his history of the American economy into four parts: Colony and Nation (to 1790), Land and Labour (to 1860), Labour and Capital (to 1920) and Consumer Capitalism (since 1920). The style, partly descriptive,

partly analytic, shows the author in full control of his material. The development of industry, banking and currency developments along with the structure of incomes, trade unionism, recognition of intellectual reactions are all noted with a deft, informative touch. "What is significant about the novels of the social realists, however, from the viewpoint of economic history, is their bitter denunciation of those prejudices of the day which they did *not* share".

About the Johnson-Goldwater campaign of last year, the author judges that it "left some bitter traces, especially at the local level: it had done little to educate public opinion or to build up that essential communal fund of information, ideas and understanding which the United States needed to combat discrimination, poverty, technological unemployment and urban decay".

This is an important key. For although Dr. Jones acknowledges the importance of such factors as the need to economise on labour in exploiting the country's natural wealth and the way the natural resources were used, for him the "ultimate historical foundations for the growth of America's wealth" are "social democracy, mobility and opportunity". This is an attractive theory which is being forced upon British management under the slogan "you can go as far as you've got gas to take you". But one wonders if the very attractiveness has not bewitched the author into accepting it at its face value. For—at the end of the day—this seems an understandable, but far too easy explanation of the social forces involved in creating such a fascinating economy.

Roy Wilkie.

WESTMINSTER AWASH

'The World in Winter', by John Christopher. 3s. 6d. *Science Fiction*.

The reactions of humanity to some nameless horror from outer space have formed the basis of many S.F. stories. In the case of this book, the horror is nothing more than a fall in solar radiation, leading, however, to another Ice Age. Britain becomes virtually uninhabitable, and mass emigration to the tropics produces a reversal of the colour bar. Credible, and full of interesting possibilities. To give him credit Mr. Christopher whips along his narrative at a cracking pace. Anarchy swamps the other of Parliaments at a rate which would have astonished and gratified Socrates. A sordid quadrangular affair between the narrator, his wife, and another married couple is simultaneously played out, with the result that the whole book falls disastrously between two stools. It is neither good S.F. nor good honest romance. The publishers have the audacity to mention Arthur C. Clarke, Raymond Bradbury and John Wyndham in an introductory paragraph, and tell us that "critics and public alike display massive indifference" to Mr. Christopher's other novels: a performance which is sure to be repeated. Let us hope that Penguin books will show some of their former discernment in the future and consign "The World in Winter" to where it belongs—a cartoon strip in a high grade comic.

Mark J. Griffiths.

MEDICAL BOOKS

Medical History

The Gold-Headed Cane, by MacMichael and Munk. Pp. 206. London: Johnson. Price 21s.

This is a reprint of a fantasy written a hundred and fifty years ago by Dr. W. MacMichael, a registrar of the College of Physicians, in which the gold-headed cane tells of its illustrious possessors until 1825 when it was deposited in the library among the relics of the College. Additions were made after the death of MacMichael and the reprint is of the 1884 edition which includes, from the pen of Dr. William Munk, a biographical sketch of MacMichael and some notes on the subsequent history of the College and its presidents.

The cane recalled the pressure of Dr. Radcliffe's

hand as he approached the sick room of King William III and the ensuing short but stormy consultation followed by a gruelling cross-examination by the Queen. Radcliffe died a wealthy man and in addition to his well known bequests to Oxford he left £500 yearly forever towards mending the diet of St. Bartholomew's Hospital. The cane passed successively into the hands of Mead, Askew, Pitcairn, Baillie and Sir Henry Hallford whose personalities are described in relation to the evolution of medical knowledge and the history of the College of Physicians. At page 197 Sir Henry Hallford's comments on the education and conduct of a physician have a spicily contemporary flavour in relation to current deliberations on the medical curriculum.

Kenneth Black.

Microbiology

An Introduction to General Virology, by Thomas M. Bell, B.Sc., PhD. William Heinemann Medical Books Ltd. Price 35s.

I am frequently asked by students to recommend to them an up-to-date book on Virology, which always puts me in a dilemma. The reason is that the standard text books, for example, the American book by Rivers, the Canadian book by Rhodes and Van Rooyen and the British book by Bedson, Downie, MacCallum and Stewart Harris are too detailed and should only be used for reference. The latter, however, is the most satisfactory for medical students. As most of you are aware, accounts of recent virology in Bacteriology text books are generally poor.

My first reaction to this new book was that it would ideally provide for the needs of students. Its format is similar to that of the standard text books but the text is remarkably condensed into 260 pages. It is well written and well illustrated. Occasionally unorthodox opinions are expressed by the author, for example, very few people now believe that the Sendai strain of parainfluenza virus is a human pathogen, but on the whole the information given is accurate and it is comprehensive and up-to-date. In spite of all this, I cannot recommend this book for medical students simply because the scientific aspects are too detailed and the clinical aspects are inadequate.

The book nevertheless provides an excellent introduction to the subject for those embarking on a career in Virology or in microbiology and it should prove useful to those studying for the M.C.Path. diploma.

R. B. Heald.

Nursing

Modern Surgery for Nurses, edited by F. Wilson Harlow, M.B., B.S., F.R.C.S., F.I.C.S. Seventh Edition. William Heinemann. Price 37s. 6d.

The latest edition of "Modern Surgery for Nurses" is still priced at 37s 6d. and is wonderful value for this money. On looking through Mr. Wilson Harlow's book, it is easy to see why it has regularly required a new edition ever since it was written in 1948. It is thorough, careful and full, well-indexed and well-illustrated. It is rare to turn over more than two or three pages without coming to a diagram or a photograph, and this new edition now contains colour-photos as well as many ones in black and white. Each time your reviewer has seen a new edition of this book, she has expressed a hope that the quotations at the head of each section will be withdrawn, but the sayings of Shakespeare and the Duchess of Newcastle still keep their place.

W. E. Hector.

Modern Nursing Theory and Practice, by Winifred Hector. Third Edition. Heinemann's. Price 30s.

Miss Hector with the third edition of her book has produced a very comprehensive study of nursing. It is very readable and it is enhanced by exceptionally good diagrams and photographs. Not only is it an excellent text-book covering all the most important facts in the theory and practice of its enormous subject; it also constitutes an excellent book of

reference which all categories of nurses throughout their training will find most helpful.

I hope this book will find its way to nurses in other countries as well as our own, for nursing principles are fundamentally the same all the world over; and since it describes clearly the most up-to-date methods of carrying out all procedures, it should help to raise the standard of nursing wherever it is read.

O. H. M. Toland.

Review of Preventive Medicine for Nurses and Social Workers, by J. B. Meredith Davies. Published by English University Press. Price 8s. 6d.

This book is a "must" for every nurses' library. While giving the necessary introduction to the structure of the health services the account is brief and includes several useful diagrams.

At the beginning of each chapter there is a review of the content and then follows an orderly arrangement of the detail. New information is often made clear by giving examples. Points of importance are printed in italics.

The content covers a wide variety of topics from vital statistics, e.g. deaths from arteriosclerotic heart disease between 1946 and 1963, to the screening techniques employed in detecting disease.

Maternity services are dealt with adequately and those working in this field will gain most benefit from this chapter.

The overall care of the newly born to the aged, with the associated difficulties and problems, has a personal touch. No doubt the author has encountered many such problems.

Anybody wanting a bird's eye view of infectious disease and international control will be satisfied. The needs of the physically and mentally handicapped also have good mention.

Infectious disease presents no problem in civilized countries but emphasis is laid on the research into the causative factors of degenerate and neoplastic disease.

A handy little book.

Joan Smith.

Obstetrics

Clinical Diagnosis in Labour, by Hamlin. 2nd Ed. Livingstone. Price 20s.

The author of this book has spent a great proportion of his adult life in the labour ward and he records his experience and observations in labour. He uses the ancient method of a detailed record of particular cases to illustrate his points, and the points are well made. Hamlin is a great enthusiast and makes a great point of the value of *rectal* examination to assess the pelvis, to judge progress in labour and to diagnose abnormality at its earliest development. The point is somewhat lost when vaginal examination is admittedly the final arbitrator.

In his description of the diagnosis of position, by finding the posterior fontanelle and the occipital bone, he might have mentioned the classic error of misdiagnosing half the frontal bone for the occipital. He correctly states that the mortality of cord prolapse can only be reduced by early diagnosis. He therefore advocates pelvic examination whenever membranes rupture or at any time when deviations of the foetal heart are noted.

His outline of routine methods of clinical assessment of a patient in labour is so designed as to be understood by a student or midwife, but his subtle points will be best appreciated by people with greater experience, and any Registrar will find in this book some important clinical point which may have escaped his notice—e.g. the abdomino-rectal method of correcting occipito-posterior positions prior to full dilatation of the cervix.

Donald Fraser.

The Queen Charlotte's Textbook of Obstetrics—11th Ed. Churchills. Price 60s.

This is probably the best book for the M.B. and although it may not contain *all* the information those ladies aspiring to the Matthews Duncan need to know, it certainly goes a long way. All the senior staff at Queen Charlotte's have made contributions to this comprehensive and readable book and the brilliant and painstaking editor has not allowed an ambiguous phrase to pass into print. Particularly valuable is the up to date account of normal and abnormal labour and its management, and the sections on the healthy and sick baby are, as we would expect, very well done. It is surprising to read in the chapter on post-partum haemorrhage that ergometrine should not be given until the placenta is delivered. The resident anaesthetists at St. Bartholomew's provide a service which is second to none, yet it is difficult, on calling one from his bed, for the patient to be anaesthetised and relaxed with a tube down within 10 minutes. During this time the patient can lose another pint of blood. *Of course*

intravenous ergometrine should be given. This will control the bleeding temporarily while proper arrangements are made for general anaesthetic and manual removal.

Nevertheless, with this exception, the book is very good and can be strongly recommended.

David K. Williams.

Physiotherapy

Return to Independence: Exercises for Stroke Patients, by Truda Wareham, M.C.S.P. Pp. 20. Price 6s.

Many thanks are due to Truda Wareham for writing this excellent booklet. It is written for the help and guidance of patients who have suffered a cerebro-vascular accident with hemiplegia, and for those who care for these patients in the home. The emphasis is put on showing the patient how he can help himself towards gaining independence, and on how relatives or friends can best help. Sections are included on the prevention of deformities, exercises for the limbs, mobility in bed, re-education of walking, feeding, washing, dressing and cooking. Some information is also given about the organisations who can help the patient. It is simply and clearly written, and well illustrated with line drawings, which make the instructions easy to follow.

This booklet will fully achieve its aim and physiotherapy students will find it well worth reading.

A. Williams.

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SPORTS NEWS

CROSS COUNTRY CLUB

The Club has started this season with a good number of talented runners but new members of whatever standard will be welcome, to continue the success the club has experienced over the past few years. We will be defending amongst other things, the Kent Hughes and St. Mary's Open Invitation trophies as well as trying to improve our position of 8th in Division 1 of the London Colleges Cross Country League. United Hospitals will again value our support in one of the fullest programmes they have organised.

25th September U.H. v. Barnet A.C. and Boreham Wood A.C. at Barnet.

Three Bart's men ran for U.H. who finished 2nd overall to Barnet A.C.

Results	min.	secs.
4. Sanders	28	04
13. Hesseldon	29	26
16. Wood	30	49

The race was won in 27.03 mins and the field numbered 25.

P.B.W.

After the exertions of a Saturday there is nothing more enjoyable than a stroll through the English countryside. An **Orienteering Club**, a branch of the Cross Country Club, has been formed for this very purpose, following the lead of Chris Brasher who has recently made this recreation popular. Each competitor is given a map and a lot of map references which are visited in turn. The course might be of 5 miles with 10 such check points. Most events cater for both sexes with the start and finish adjacent to a pub in the beautiful Surrey countryside. Anyone can take part, and the competition varies from international athletes such as Martin Hyman and John Disley, and consultants such as Dr. Roger Bannister, down to the couple who want to take the dog for a walk. Try your hand at orienteering. You will enjoy it.

Enquiries to P. Wood, Hospital A.R. or R. Thompson, Charterhouse A.R.

R.S.

Answer to Diagnostic Problem (Page 443)

The investigation that confirmed the clinical diagnosis was the Paul Bunnell test. Both the presumptive and the differential tests were positive—the anti-sheep red blood cell agglutinins were not removed by guinea pig kidney suspension but were removed by ox heart suspension.

A few days before the patient's admission a four year old boy was admitted with a similar clinical picture. It was obviously much more difficult to evaluate the sensory changes in his case. Abnormal monocytes were found on examination of the blood smear and the Paul Bunnell tests were positive. Viral studies have isolated an E.C.H.O. virus.

This patient had all the essential features for the diagnosis of a polyneuritis. Paralysis of a lower motor neurone type that initially mainly involved the distal muscles. The initially sluggish jerks that became absent. The glove and stocking sensory impairment. The tachycardia. This case falls into the category of an acute febrile polyneuritis—a syndrome that may occur as a complication of infective mononucleosis. The lymphadenopathy, splenomegaly and positive Paul Bunnell tests were taken as being diagnostic of that condition. The immediate differential diagnosis is obviously diphtheria with an ensuing diphtheritic paralysis. The throat exudate in this case was of the pseudo-anginose type and no corynebacteria were isolated either from the throat swab or from the nasal swabs.

In most cases of polyneuritis the C.S.F. is normal. In certain acute and severe cases however it may contain, as in this case, an excess of protein. Besides the right facial palsy, the bulbar palsy, the incontinence and limb weakness she has now developed a diaphragmatic paralysis. Viral studies are not yet available.

(I would particularly like to thank Dr. B. W. Powell, Consultant Paediatrician, Peterborough Memorial Hospital, for his permission to use this case.)

RUGBY FOOTBALL CLUB

Cheltenham Seven-a-Sides 12th September

Pre-season training started in mid-August with the Cheltenham Sevens in view. This was an enjoyable outing in which some good rugby was played and seen. Drawn against Torquay in the first round Bart's took the field billed as U.H. Sevens Champions. Torquay scored two early tries which were converted, but in the second half Johnson and Goodall ran for tries which were converted by Savage. Further scores by Torquay put them through to win 16-10.

25th September v. Trojans. Lost 0-5.

This first full XV match of the season was played in the wet with a team containing several newcomers to the side. The forwards showed the need for match practice, though the new back row settled down well, and the results were encouraging for future matches. The Trojan pack was heavier and more solid

but at half time there was no score, Bart's having lost Jefferson injured for a time. However in the second half a Trojan forward rush near our line put one of their forwards over for a converted try, the only score.

29th September v. Beckenham. Lost 6-13

Bart's played with considerably more cohesion against Beckenham and the backs were given a chance to run with the ball. Before half time Beckenham were awarded a penalty in our 25 which put them ahead, and which was followed by a converted try by their No. 8. With the light fading Bart's went into the second half with great spirit. Griffiths dropped a splendid goal and Johnson picked out of the loose to make the score 8-6 in their favour. After continued efforts to score, an unlucky dropped pass was seized upon by Beckenham to give them their final try in the dusk.

S.M.J.

CRICKET CLUB

1965 has been a very successful season for Bart's both on and off the field, for not only did we reach the inter-hospital cup final for the first year since 1953, but we also had the rare distinction of being asked to leave the 'Plough' at Rottingdean.

Our final record is as follows:—

Played 30. Won 14. Lost 9. Drawn 7.

The success of the team was due largely to the bowling strength. Few sides could cope with the speed and accuracy of Savage and Vartan, and the bowling figures of the former in no way flatter his ability. The batting however relied very much on one of the recognised batsmen to score runs. The weakness of the middle order batsmen was the outstanding difference between Bart's and St. Thomas'. However the batting of R. Higgs must not be overlooked; to score 815 runs when the majority of other batsmen are not scoring many is an excellent feat.

The Sussex tour was the most successful part of the season as we won four of the five matches. However this form did not continue when we played St. Thomas', who were by far the strongest side we played. They outclassed us on the day in all spheres of play, except perhaps in bowling.

Thus with the majority of the Cup team available for next season we look forward to another good season.

Finally our thanks must go to Mr. and Mrs. White for all they do for us at Chishurst, and to Bert Blundell for umpiring our matches.

Final Averages

Batting (10 completed innings).

	Innings	Not Out	Total Runs	Highest Score	Average
R. Higgs	28	2	815	81	31.3
S. Thomas	10	0	311	93	31.1
N. Griffiths	27	0	644	95	23.9
C. Vartan	22	2	447	45	22.3
J. Gately	22	4	398	110*	22.1
G. Hopkins	11	0	181	42	16.4
R. Wood	14	1	200	49	15.8
G. Major	13	2	164	50	14.8
J. Harrison	17	3	172	29	12.3

Also batted:—

P. Savage, A. Husband, R. Hand, D. Delaney, N. Offen, O. Berstock, H. Phillips, C. Grafton, T. Bates, C. Richards, D. Pope, P. Bradley-Watson, J. Pemberton, R. Browne.

Bowling (10 wickets).

	Overs	Maid's.	Runs	Wkts.	Avg.
P. Savage	268.7	66	629	50	12.6
D. Husband	111	29	268	14	14.1
J. Harrison	184.9	45	468	31	15.1
N. Griffiths	173	34	531	34	15.7
C. Vartan	264	51	804	37	21.7

Also bowled:—

D. Delaney, 7 : 1 : 13 : 5; J. Gately, 15 : 1 : 82 : 8; D. Berstock, 13.4 : 4 : 40 : 5.
 Catches: J. Gately 14 (1 stumping), N. Griffiths 13, C. Vartan 11, R. Higgs 9, N. Offen 7, R. Hand 8 (1 stumping), R. Wood 5, J. Harrison, D. Husband, G. Major 4; P. Savage, G. Hopkins and P. Bradley-Watson 3.

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TENNIS CLUB

As the climax to the season, the Club's Singles competition was played on Saturday, August 28th.

Considering the windy conditions the standard of tennis was remarkably high, possibly helped by the perfect condition of the courts.

The 1st round was highlighted by the fine win of J. Davies (never looking his age!) over M. Nightingale, the 2nd team captain. The rallies were on occasions so long that the competitors had difficulty in remembering the previous score in this lengthy match.

In the next round, A. D. Edelsten, the winner of this Cup for the past four years (so he assures us!) had a comfortable win over M. Brueton, while a very steady N. Ireland beat D. Browne. In the other half of the draw M. Fryer beat C. Garrard after a close 2nd set, whilst Jerry Davies was again involved in a very close game, this time with M. Setchell. Davies was supreme in narrowly losing to the more experienced Setchell.

After a break for tea, the semi-finals were played. In the 1st semi-final A. D. Edelsten played N. Ireland. Although the latter is a very steady singles player he could never quite master the powerful all-round play of his

opponent, just fresh from his triumph in the Winchester Tournament, the final score being 6-4, 6-3 to Edelsten.

In the other semi-final M. Fryer played M. Setchell in the closest match of the tournament. With the score one set all and three games all in the final set rain prevented any further play until the following Sunday when the tournament was completed. One set was played to decide the winner of the interrupted semi-final and M. Fryer emerged the victor by 6 games to 3.

The final was played in perfect conditions. A. Edelsten won a very one-sided first set 6-0 in less than 10 minutes without hardly putting a foot wrong. Fortunately for Fryer his opponent could not maintain this form and aided by some improved ground strokes games went with service until 5-5 when Edelsten broke his opponent's service with two well placed volleys. He then served for the match to win 6-0, 7-5.

The following have played for United Hospitals this season: A. D. Edelsten (Hon. Sec. U.H.), M. E. Fryer, M. Setchell, N. Ireland and R. Farrow.

M.E.F.

SPAS OF RUMANIA

From earliest times men have recognised the curative value of spa water, but it was the Romans who really developed the idea of the spa as a social watering place and built extensive bathing facilities at these sites. The continent is liberally endowed with spas and even in the country we have famous spas such as Bath and Cheltenham and many lesser known ones like the spas at Brighton and Scarborough, and even closer at hand—Shoreditch and Islington.

The Romans occupied Dacia and the regions around the mouth of the Danube (which represents most of present day Rumania) from the second to the third century A.D., and during this time discovered and developed most of the Rumanian spas. There are in fact more than 350 spas in Rumania, and here the idea of a spa as a convalescent and treatment centre is taken very seriously. They are government-run and run very efficiently too. At these places the therapeutic value of the spa water—for which different spas have been found to have particular value in treating particular diseases—is combined with a full range of specialised medical treatment. This treatment involves all aspects of hydro-, pneumo-, and electro-therapy; super- and sub-pressure rooms; inhalation, atomization, irrigation and thermotherapeutic installations; as well as halls for medical gymnastics and laboratories for a full range of medical tests and pharmacy. Most of the spas are set in the foothills of the eastern and southern sides of the great Carpathian range of Mountains. These rise up to 8,000 ft. in places and provide excellent hunting grounds for the bear and stag in the summer and also superb skiing in the winter. But not all the spas are in the mountains; some are on the Black Sea Riviera coast where modern resorts, wonderful bathing (and a superb climate) attract tourists from all over the world. Accommodation is usually in villas. These have been provided with everything to make the stay of the patient as comfortable as possible, and besides the cuisine, for which the Rumanians are justly proud, there are the fullest facilities for entertainment. All this combines to provide the best possible conditions for the healing waters of the spa to act.

A feature of particular interest in Rumania is the "outside painted churches" which are found mainly in the Moldavian district in the north. These date from the end of the Byzantine era and were used as a means both of spreading religious ideas to the illiterate peasants and also of inciting them to fight against the Turks and throw off the Ottoman yolk. Something which wasn't achieved for three hundred years.

THE SPAS THEMSELVES

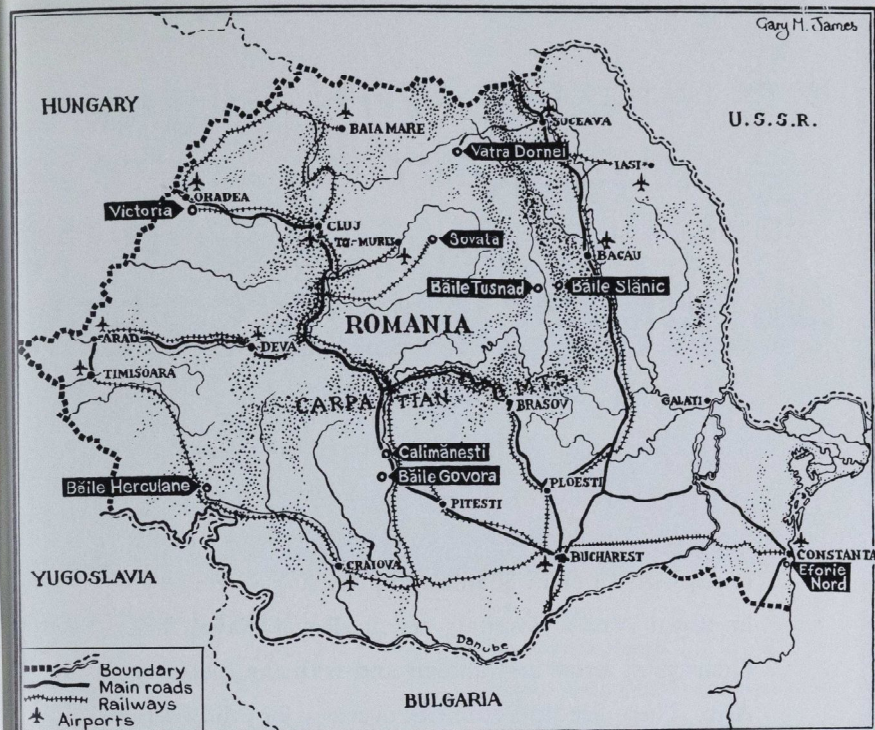
Vatra Dornei. A very famous spa and equally famous ski resort. The waters here are particularly recommended for cardiovascular disorders. The highly mineralised peat of this region is applied externally for diseases of joints, bones, muscles and tendons.

Slanic Moldova. 1,500 feet up in the Slanic valley. It is probably the most beautiful of all the Rumanian spas. The waters come from the melting snows of mount Pufu and Piciorul, flow below ground, and dissolve the various salts which the rocks contain, and which give the waters particular value in the treatment of digestive dysfunction and respiratory tract disorders.

Baile Sovata. In the very heart of the Carpathians at an altitude of 1,500 feet. The therapeutic factors here are the salt lakes, whose temperatures vary from 20°C. to 60°C. and which are particularly recommended for rheumatism and chronic women's diseases.

Baile Herculane. One of the most famous Roman Spas (it still has a well-preserved statue of Hercules there). The thermal springs (45°C—55°C) and the mineral waters are used in the treatment of rheumatism and nervous and muscular complaints.

Calimanesti, Caculata and Govora are three spas found quite close together, and lying sheltered in the Olt valley. They are surrounded by forests and the richest fruit-growing areas in the country. They lie on sedimentary rocks of the tertiary age whose components are dissolved in the water (to give it the high concentration of sulphur, sodium iodide, bromide and chloride) and have found great use in the treatment of diabetes and chronic diseases of the locomotorium, as well as rheumatism and gynaecological afflictions.



GEROVITAL H3

Gerovital H3 is the result of researches carried out at the Institute of Geriatrics at Bucharest, and is used there with outstanding results in the treatment of many conditions of the aged and in the prophylaxis of old age itself.

Treatment is carried out in the magnificently appointed Geriatrics Institute under the supervision of specialists, and although a minimum stay of two weeks is recommended, in order that the full range of examinations, laboratory tests and treatment may be carried out, patients may continue this treatment for as long as they like; either at the institute, or at one of the spas or in the patient's home country, with doctors who are conversant with the methods of the treatment and how it is carried out. Patients can of course purchase Gerovital

H3 abroad. Besides the treatment there is much to see in Bucharest and the surrounding countryside. Bucharest is the capital of Rumania and the cultural centre of the country. It has been called the garden city on account of the numerous parks and flower gardens with which it abounds. It is also exceptionally well endowed with theatres, museums and modern shops as well as many other attractions for the tourist.

For further information on the Spas and Gerovital H3 you should write to

**The Rumanian National Tourist Office at
98-99 Jermyn Street,
London, S.W.1. (Tel.: WHITEhall 8812/3)**



NURSING WITH THE ROYAL NAVY

NURSING SISTER

Requirements for Direct Entry as a Nursing Sister are British Nationality, S.R.N. with at least one year's post-graduate experience. Preference given to applicants, with an extra qualification. Nursing Sisters serve in Royal Naval Hospitals and in Royal Naval Sick Quarters at home and abroad and with the Fleet Air Arm. There are opportunities overseas for Midwifery and District work. Special allowances and Seniority given to Sister Tutors.

For further details on the Queen Alexandra's Royal Naval Nursing Service write to:—

**The Medical Director General (Naval),
Empress State Building, London, S.W.6**



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REVOLT UNDER REVIEW

"Spearhead of the attack is likely to be at one London hospital" forecast the *Observer* on September 19th beneath the headline, "Doctors rebel at 110-hour week". Monday's *Daily Sketch* put an end to speculation by naming St. Bartholomew's Hospital as the site of this acute attack of discontent among junior hospital staff. The story of the 'Bart's Revolt' spread to the other national dailies, even percolating through to the venerable columns of the *Times* by Friday. It all began when the Bart's housemen received a circular requesting signatures for an independent letter to be sent to the Chairman of the Review Body, Lord Kindersley, in support of better pay and conditions for junior hospital doctors. A meeting for housemen and registrars was then arranged to discuss the controversial proposals contained in the draft letter. The date of this meeting was brought forward in an attempt to outwit the Press, but the next day the *Daily Telegraph* carried a full (if somewhat inaccurate) account of the discussions. At no stage however has there been the least intention of any revolt among the medical staff at Bart's.

These parochial deliberations attracted much support from hospital junior medical staff elsewhere—hence the formation of the Action Group which is entirely independent of Bart's, although the Chairman, Dr. M. A. Hession, is now a junior registrar at the Hospital. The Action Group recommends a starting salary of £1,200 (instead of £770) rising to £3,000 for senior registrars. Other proposals include allowances for wives and examination fees, and compensation for the expenses of frequent removal. The Review Body has agreed to receive the evidence of the Action Group, and a meeting of junior hospital staff on October 31st decided emphatically against the suggestion that it should be left entirely to the B.M.A. to present the evidence on their behalf. According to the *B.M.J.* (November 6th) there is little difference between the Action Group's proposals and those of the Hospital Junior Staffs Group Council of the B.M.A. Although the salary scales recommended by the latter remain confidential, they will clearly be related to the proposals in the Richmond Document (brought out by the Consultants Committee of the B.M.A. in July) and these were far from ungenerous. In a letter to the *B.M.J.* (October 16th) Dr. Hession has exposed the deficiencies of the present cumbersome machinery which allows the opinions of junior staff to filter through several layers of the complex structure of B.M.A. committees before they can reach the ears of the Review Body. Again the past record of the B.M.A. in this respect is none too good: their recommendation of a 29% rise in housemen's pay was in fact doubled by the Royal Commission of 1957-1960. It is small wonder that junior staff prefer to present their case direct to the Review Body.

According to Andrew Alexander in the *Weekend Telegraph* the Review Body's "pronouncements have proved the rule that if you want silly advice, an independent commission is one of the best sources for it". One may wonder in passing to what extent the individual members of the Body are acquainted with the N.H.S. on a personal level. Nonetheless they have a peculiarly unenviable task ahead of them when they come to consider anew the remuneration of all the country's doctors. The G.P.'s have a powerful lobby and are likely to obtain satisfaction. But what are the prospects for hospital doctors? "Their claims are just and should be conceded" wrote the *Daily Mail*, and there is certainly more sympathy for the housemen outside the profession than within. We believe that it is the registrars who deserve the greatest increase in salary; the current remuneration for men of their abilities and qualifications is quite outrageous. And perhaps if the housemen could see better rewards ahead of them they might be satisfied with less during their apprenticeship.

Dr. G. Hamilton Fairley has recently resigned as Deputy Chairman of the Journal Publications Committee; he is succeeded by Dr. Douglas Chamberlain. Dr. Harvey White has also joined the Committee.

LETTERS TO THE EDITOR

FIFTY YEARS AGO

Sir,—I cannot help but agree with Dr. Whittingdale (*Amours Financed*; see *November Journal*) about those members of the junior staff who are agitating for higher salaries. Surely they must realise how fortunate they are to be in any teaching hospital where only about 10% of people who apply are admitted as medical students.

When I was on the junior staff in 1911 I was given board and lodgings, and very pleased to get them as I was not well off. When I was on the Honorary Staff my salary was £50 per year to prove that I was a servant of the Hospital Governors. When I retired after 30 years on the staff, I received a letter in which the writer said "he believed the Governors would like to thank me for my services". His belief seems to have been correct as they made me a Governor, which was the fashion in those days, and I received a staff of office, like a black billiard cue.

Yours truly,

MALCOLM DONALDSON,
337, Woodstock Road,

8th November. Oxford.

Sir,—I was interested to read the letter by Dr. John Whittingdale, *Amours Financed*, in the November Journal reminding us again of the opinions of those doctors who trained fifty years ago. I am sorry to hear that he is distressed by the recent efforts of Hospital Junior Medical Staff to obtain better remuneration and conditions. Perhaps he finds it difficult to appreciate that £1 when he was a student is now worth 3/10d., that standards of living have changed and the residential quarters of many hospitals have not stood the test of time. But more important, I wonder if he realises that people's attitudes and relationships have changed in the 50 years since he qualified as indeed they did in the fifty years before.

He asks whether the resident staff "of one of the more illustrious teaching hospitals" have failed to realise that they are the envy of many doctors. Let me assure him that we do so realise, but we believe that the envy is due to the high standard of medical education and practice for which this hospital stands today,

rather than the great traditions with which it has been associated. He also asks whether we realise that we are placing ourselves, in the eyes of the public, in the same category as railwaymen and post office workers. Since we are all public servants, we are indeed in the same category, and it is, eventually, to the public that we must appeal.

Dr. Whittingdale states that medicine is an exacting mistress, and that until we have completed our apprenticeship, we have no business to get married. Is he aware that medicine has advanced to such a stage that we must regard ourselves as life-long apprentices, and that medicine can no longer be a mistress, she requires the full status of a marriage partner? It must be left to the individual to decide at what stage in his life-long apprenticeship he might consider marriage to a human partner, which so often provides the impetus and ambition for further study and resolves those conflicts which might otherwise interfere with that study.

Finally Dr. Whittingdale asks whether it is fair that the taxpayer would be asked to finance Resident Staff's amours. We, in common with the Inland Revenue, distinguish between marriage and amours. The Inland Revenue acknowledges that financial relief should be provided for married persons and does not attempt to lay down any age at which this relief will be provided. Those that use the medical services know that it is just and reasonable to give to those that provide these services such rewards as enable them to undertake the commitments of marriage, a voluntary but natural state, without imposing restrictions on the stage at which they may enter this state.

Dr. Whittingdale may not be sympathetic to the changes which have taken place in society in the last fifty years, but he must acknowledge that they have taken place before he loses contact with our generation.

Yours faithfully,

M. A. HESSION,

4th November. St. Bartholomew's Hospital.

MISS WINIFRED FOVARGUE

Sir,—I first met Miss Fovargue when she was appointed Sister X-Rays after I was promoted to take charge of the Department. We rapidly became friends and the friendship has lasted until she died suddenly on October 13th. I last saw her on October 11th when she had been staying with me and my sisters for a few days. She was then ill but we had not expected her sudden death so soon. She and I never had any quarrel, and when she had to discharge an inefficient radiographer it was all done with kindness and helpfulness to get a less exacting job. One of my sisters also knew her well when she was Welfare Supervisor at the Prudential Assurance Company and had to bring girls up to the Department. She has been to stay with my two sisters and myself for short periods since my retirement from the Hospital. Her father was the Town Clerk of Eastbourne and he became a patient of mine for a successful treatment by radium. Her mother also came to me for some radiographs. As Sister X-rays Miss Fovargue was most efficient in her work and had to set up X-ray cases for treatment. We have always had a laugh over one case where she carefully set up a leg for this and then discovered that it was the wrong side as this was a wooden leg. After her retirement she became a J.P. for Eastbourne until she reached the age to retire from this. The present Sister to the Radiography Department worked under her and is a worthy successor.

Yours sincerely,
N. S. FINZI,
The Garth,
Miles Lane,
Cobham, Surrey.

25th October.

Sir,—I would like to add my tribute to the memory of Winifred Fovargue, formerly Sister X-Rays. All those who worked with her, as I did for 16 years, will know that she typified all that is best in Bart's nursing. Her driving forces were unflinching devotion to duty and a great kindness and sympathy for those in distress, and these, compounded with a grand sense of humour made her the ideal sister of an overworked department, with a large throughput of inoperable and often hopeless cancer cases. In one respect, however, Miss Fovargue was not a typical Bart's sister. Nothing would prevent her from speaking her mind, immediately and in forthright terms, in defence of what she knew to be right. Not

for her the delayed and tactful approach. Injustice was threatened and must not be allowed to pass. Yet she was held in such high regard by everyone that even the most illustrious members of the Staff whom she crossed in this way would react only with a momentary flush—and she would usually get her way.

In her middle years, her rather quick temper and forthright manner made her a little frightening to newcomers to her Department, whether radiologists, radiographers or nurses. I, personally, was terrified by her for about a month when I first joined the Department in 1924. But everyone soon came to appreciate and eventually to love her. In later life, she mellowed greatly, as befitted her office of magistrate, and I am told that her sound commonsense on the Bench was widely respected.

I last saw Miss Fovargue about 6 months ago at Dr. Finzi's, and I could not help reflecting that these two still gay and youthful minds—he an octogenarian and she 79—belied the belief that exposure to radiations, at a level which must have been far above the now maximum permitted level, necessarily results in premature ageing.

Our sorrow at Miss Fovargue's passing is tempered by gratitude for her wonderful life.

Yours sincerely,
W. M. LEVITT,
11a, New Square,
Lincoln's Inn,
W.C.2.

1st November.

TRUNK ROOM JUNK

Sir,—At a recent meeting of the floor representatives of College Hall, the problem of the present overcrowding of the trunk room was discussed. This basement room now houses the most incredible selection of "junk" varying from beds to bird cages, and it is becoming increasingly difficult for current residents to find a square inch to store their belongings.

On investigation we find that a large proportion of the present contents of the trunk room belong to past residents, some almost of a bygone age.

Early in the New Year, we are arranging a grand clearance of the trunk room contents, and those articles not belonging to current residents will be disposed of. It would be a great help to all concerned if those resid-

ents with articles at present stored in the trunk room, would remove them before the New Year.

Yours sincerely,
R. L. ROTHWELL-JACKSON,
College Hall,
Charterhouse Square.

4th November.

Engagements

MACPHERSON—DOWNES.—The engagement is announced between Dr. Duncan Andrew MacPherson and Miss Angela Mary Downes.

WISE—OXENHAM.—The engagement is announced between Dr. Kenneth Wise and Miss Julia Oxenham.

Marriage

RIMMER—MOLAN.—On October 3, Dr. M. E. Rimmer to Miss Ciaran Mary Molan.

Births

MARSHALL.—On October 1, to Penelope (née Broadhurst) and Dr. R. D. Marshall, a daughter.

POLLOCK.—On October 10, to Deborah and Dr. Anthony Pollock, a daughter.

TAIT.—On October 2, to Janet (née Nye) and Dr. Ian Tait, a son (Hugo Mark).

VISICK.—On October 23, to Angela (née Pattinson) and Dr. James Hedley Visick, a daughter (Helen Jane Hedley).

Deaths

COLEMAN.—On October 3, Stanley Maurice Coleman, M.R.C.S., L.R.C.P., D.P.M., aged 63. Qualified 1926.

PARAMORE.—On October 21, Richard Horace Paramore, M.D.(Lond.), F.R.C.S., aged 90. Qualified 1900.

REICHWALD.—On October 21, Dr. Max B. Reichwald, M.B., B.S., M.R.C.S., L.R.C.P., aged 87. Qualified 1905.

SCOTT.—On October 8, Dr. Walter Henderson Scott, M.R.C.S., L.R.C.P., D.P.H., aged 88. Qualified 1903.

Appointments and Awards

Dr. W. H. Jopling has been appointed Consultant in Tropical Dermatology, St. John's Hospital for Diseases of the Skin, London, W.C.2.

Dr. Carruthers Corfield has been awarded the Freedom of the City of London.

December Duty Calendar

Sat. & Sun., 4th & 5th.

Dr. Hayward
Mr. Badenoch
Mr. Manning
Dr. Bowen
Mr. McNab Jones

Sat. & Sun., 11th & 12th.

Dr. Oswald
Mr. Tuckwell
Mr. Aston
Mr. Ellis
Mr. Dowie

Sat. & Sun., 18th & 19th.

Prof. Scowen
Prof. Taylor
Mr. Burrows
Dr. Ballantine
Mr. Fuller

Sat. & Sun., 25th & 26th.

Sir R. Bodley Scott
Mr. Hunt
Mr. Aston
Dr. Jackson
Mr. Cope

Sat. & Sun., 1st & 2nd January, 1966.

Dr. Black
Mr. Naunton Morgan
Mr. Manning
Dr. Boulton
Mr. McNab Jones

Physician Accoucheur for December is Mr. Bourne.

BART'S THREE COUNTIES ASSOCIATION

The annual dinner of the Bart's Three Counties Association was held on Saturday, 9th October at the Star Hotel, Worcester. The Guest of Honour was Dr. Graham Hayward and Mr. J. Newbold, Wolverhampton, was in the chair. Dr. A. Langford, Hereford, proposed the health of the Hospital and Dr. R. G. Anderson, Gloucester, proposed the health of the Guest of Honour. The members were delighted to have the opportunity of entertaining Dr. Hayward and hearing his amusing and informative speech.

This dinner is held annually at the beginning of October, the next date being Saturday, 8th October, 1966 at the Star Hotel, Worcester. Bart's men resident in the Three Counties or adjacent areas, who are interested in attending this event and who do not at present receive invitations, are asked to contact the secretary: Dr. G. E. R. Bibbings, Summerhayes, Cradley, Malvern, Worcs.

Presentation of Certificates and Awards to Nurses

THE Hospital was honoured by the presence of the Right Honourable The Lord Mayor of London, Sir James Miller, K.T., on the occasion of the Presentation of Certificates, Prizes and Awards to Nurses on the afternoon of Wednesday, 27th October. This is the first time that the certificates and awards have been formally presented to the nurses in this way, although the Worshipful Company of Clothworkers has donated medals and first year proficiency awards every year since 1885. Judging by the success of this occasion it promises to be a welcome addition to the annual ceremonies of the Royal Hospital.

In his opening address The Treasurer of the Hospital, Mr. M. W. Perrin, C.B.E., welcomed the Lord Mayor and the Master of the Clothworkers, Mr. I. N. Horne, and spoke with pride of the long and fruitful association between

Gold Medal—Miss Diana Patricia O'Brien Hogan

Gold Medal—Miss Pauline Marilyn Patchett

Bronze Medal—Miss Susan Mary Evans

FEBRUARY EXAMINATION

Medical Prize: Miss Janet Prior

Surgical Prize: Miss Yvonne Mavis Wall

Nursing Prize: Miss Diana Patricia O'Brien Hogan

JUNE EXAMINATION

Medical Prize: Miss Pamela Stewart Melrose

Surgical Prize: Mrs. Caroline Victoria Harris

Nursing Prize: Miss Carolyn Jane Warne

OCTOBER EXAMINATION

Medical Prize: Miss Elizabeth Mary Burton

Surgical Prize: Miss Janet Biron

Nursing Prize: Miss Ethel Gillian McGuinness

GYNAECOLOGICAL PRIZE FOR THE YEAR

Miss Pamela Susan Woollard

1st Year Proficiency Awards

December 1964—Miss Sally Ann Derry

February 1965—Miss Victoria Ballard

June 1965—Miss Elizabeth St Clair Ferreira

October 1965—Miss Morag Margaret Butler

Bart's and the City of London. The Matron, Miss J. M. Loveridge, expressed the gratitude of the Nursing School to the Clothworkers for their continuing generosity. There followed the Report for the year, given by the Principal Tutor, Miss W. E. Hector.

The Lord Mayor congratulated and thanked the nurses for their good work and presented them with their certificates and prizes. The Master of the Clothworkers then presented the medals and first year awards. The ceremony concluded with short speeches of thanks to the distinguished visitors from the two Gold Medallists, Diana Hogan and Pauline Patchett; the company then adjourned for tea in Gloucester House.

The following awards and certificates were presented:

Four Year Certificates

Abbott, M. R.; Bannister, A.; Battley, S. R.; Bidwell, M.; Biron, J. (2nd Class)*; Blunt, J. M.; Booth, J. A. (2nd Class)*; Burn, R. M.; Burton, E. M.; Butler, A. P. (Mrs. Church); Cole, D. B.; Coles, E. M.; Coles, J. J.; Constable, R. (2nd Class)*; Copple, Mrs. (née P. J. B. Jones); Coulter, R. A. (2nd Class)*; Dobson, A. C.; Dobson, A. E. (Mrs. Kirby); Easter, S.; Evans, M. E.; Evans, S. M. (2nd Class)*; Finnigan, S. A.; Gillett, J. R.; Groves, J. L.; Hammonds, D. E.; Harris, Mrs. (née C. V. Carpenter) (2nd Class)*; Harrow, M. R.; Hawkins, C. M.; Higgins, Y. M. E.; Hill, M. A.; Hinman, S.; Hogan, D. P. O'B. (1st Class)*; Holman, M. I.; Ireland, J. B.; Johnson, M. A.; Jones, D.; Jones, R. B.; Kavanagh, D. M.; Keel, H. M.; Knight, E.; Ladd, P. A.; MacDonald, P. E.; MacQuillan, E. C. M.; McGuinness, E. G. (2nd Class)*; Melross, P. S. (2nd Class)*; Mitchell, E. M.; Morgan, J. S.; Morley, E.; Newbigging, C. P.; Noyce, G. M. (Mrs. Richardson); Owen-Flood, P. A.; Patchett, P. M. (1st Class)*; Pearson, C. M.; Pedley, S. M.; Peyton, J. A. (2nd Class)*; Plummer, J. A. (Mrs. Collett); Porter, J. F.; Prior, J. (2nd Class)*; Randall, S. M.; Rose, J. M.; Rowland, R. M.; Sadler, A.; Sale, R. J.; Smale, S.; Smethurst, M. L.; Smith, J. M.; Stokell, P. A.; Street, J. (Mrs. Leamy); Tanner, M. A.; Tarner, C. M. (Mrs. Hill); Terry, Mrs. (née Y. A. Barclay); Thompson, W. M.; Tribbeck, M. A.; Wall, Y. M. (1st Class)*; Warne, C. J. (2nd Class)*; Wars, B. J.; Woollard, P. S. (2nd Class)*; Bell, M. J. (Mrs. Daniel); Whiteside, C. J.

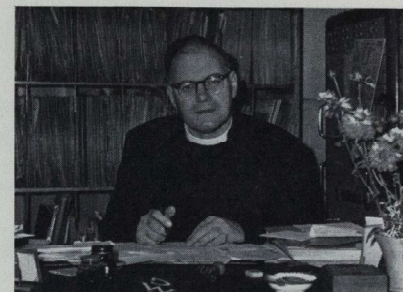
*Honours

Christmas Message from the Hospitaller

THE Feast of the Holy Nativity of our Lord and Saviour Jesus Christ is a time in the Christian year of great happiness which shines out and penetrates far beyond the boundaries of the practising Christian; it is also a season of traditions and customs. They may be universal, local or personal and every household makes its own combination of the three. Here, the hospital too has its own traditions and customs; the employment of the patients in making Christmas decorations, the G.P.O. with its brass bugles and kettle drum band arriving with gifts for the children's wards, the Christmas Eve Ward Carol processions, the three oldest (and smallest) bells in the City tinkling out from the tower of Barts-the-Less at the elevation in the Midnight Eucharist to greet the newborn child, the dinners and the exuberance of the ward shows, the snatches of tunes on the honky tonk pianos—a time of great human friendship and comradeship in the wards. We shall all enjoy these things to the full, everyone especially the patients look forward to receiving their presents and the welcome exchanging of messages, especially from members of the family who are abroad who share in the joy.

In this immense activity of preparations and the enjoyment which follows we may find a time for that quietness of soul in which we can realise to ourselves the Divine meaning of Christmas, a quietness of which the Pope spoke in his recent address to the United Nations: "a moment of recollection, of reflection, almost of prayer, a moment to think anew of one common origin, one history, one common destiny".

What does Christmas mean to Christians? It means that we remember with wonder the amazing humility of God which goes quite beyond belief. It was shown supremely in the way God thwarted our pride by humbling



himself to be born among us and among the least of us.

Anyone who ascends the Great Hall staircase passes William Hogarth's painting of the Good Samaritan, depicting the Samaritan pouring oil and wine into the wound of the robbed man who also had an injured arm. Below the painting the frame encloses the relevant passage from St. Luke's Gospel describing how the Good Samaritan crossed the road to where the victim was lying, including those four unforgettable words "Came where he was".

Now that is precisely what Jesus, our Lord and God did for the rest of man. He came where we were, into a world full of fear and in terror of desolation (a world so accurately depicted in Hogarth's earlier work); and from the squalid cave where he was born, the Light which lighteth every man gave the first dawn of hope to hearts who wanted him to come.

Not only was he a God of Humility but also of wondrous compassion—a virtue required of all who work in a hospital community. We too are in a world of fear and in terror of desolation with much distress of mind and body as well as withering cynicism. This lovely humility shown by God to us at the first Christmas is a rebuke to our pride, our aggressiveness and our desperate desire for status.

Neither humility nor its fruit compassion stop to think of self; they are too busy looking out for souls needing to be helped, encouraged, comforted and loved, and they point also to another aspect of that wonderful humility of God—His silence, in the words of Philip Brook's hymn—

"How silently, how silently the wondrous gift is given,

So God imparts to human hearts the blessings of his heaven".

It was in the quiet of the night that the humble God made himself known. I hope that Christmas will not pass without some time spent pondering in silence the love that God has for you and for all of us; and remember to thank him for the joy he so generously gives us and for the hope which the powers of darkness shall never kill. For the Christian it is all beautifully summed up in a prayer of the French Jesuit-philosopher-scientist, Pierre de Chardon:

"Grant, O God, that when I draw near to the altar to communicate I may henceforth

BART'S MUSIC SOCIETY CONCERT

<i>Overture: Iphigenia in Aulis</i>	Gluck
<i>Flute Concerto in G major</i>	Mozart
<i>Violin Concerto in A minor</i>	J. S. Bach
<i>Symphony No. 1 in C major</i>	Beethoven

Paul White (flute) Michael Spira (violin)
Bart's Music Society Orchestra
Conductor: Robert Anderson

It is four months now since the Bart's Orchestra gave its last concert in Gloucester Hall. On the evening of 15th November they showed that they have improved immeasurably during this time. The Orchestra played particularly well in Beethoven's *Symphony No 1 in C major* and it was a great pity that there was only enough time for the first movement of this work to be performed. Gluck's overture *Iphigenia in Aulis*, arranged for orchestra by Richard Wagner, is a rather uninspired and uneven work but received a very competent performance here.

The highlight of the evening was undoubtedly Mozart's *Flute Concerto in G major*; the soloist from the London Hospital, Paul White, played most beautifully and to some extent showed up the orchestral accompaniment, which was a little uncertain in places and thin in tone. There was greater cohesion in Bach's *A minor Violin Concerto* where conductor and soloist conspired to set an admirably firm tempo. Michael Spira showed considerable technical mastery of the demanding solo part.

discern the infinite perspectives hidden beneath the smallness and the nearness of the Host in which you are concealed. I have already accustomed myself to seeing beneath the stillness of that piece of bread a devouring power which, in the words of the greatest doctors of your Church, far from being consumed by me consumes me. Give me the strength to rise above the remaining illusions which tend to make me think of your touch as circumscribed and momentary"

May I wish you all a very Happy Christmas.

<i>Never Weather Beaten Sail</i>	Campion
<i>The Silver Swan</i>	Gibbons
<i>All Creatures Now</i>	Bennett

Bart's Madrigal Society
Conductor: Philip Wood

The Bart's Madrigal Society made a most promising debut. The singers sang with obvious enthusiasm and the quality of the sound in places was really superb, particularly in the upper registers. The balance was perhaps a little unhappy, but this can easily be rectified by a slight increase in the number of male voices. Contrast too might receive a little more attention in the future: this applies equally to the choice of works as to the dynamic range within each song.

Articulation, that great affliction of all amateur and professional choirs, was a little muzzy at the start, but gradually improved until in the last song one could hear almost every word quite clearly. The intonation was good and the rhythm, though lacking a certain incisiveness, was well maintained.

All in all this was a fine performance and Philip Wood is to be congratulated on bringing together and moulding a commendable group of singers from whom we hope to hear much more in the future.

From our Music Correspondent.

A Case of High Blood Pressure

by CARRUTHERS CORFIELD*

*There was a man who owned a clock, his name was Matthew Mears,
He wound it reg'lar every day for five and forty years,
And then one day as it fell out an eight day clock to be,
A madder man than Matthew Mears you'll never wish to see.*

Now sit back and consider the case of Farmer Mears.

He must have been a man of settled convictions, a dull fellow, a regular tardigrade.

As his wife Mary brought the candle in a bright copper candlestick at bedtime so he wound his clock, every night the same, year in, year out, a rite betokening the close of his day's labour. He never took a holiday for he could trust no one to wind Grandfather. Every event of his life and his family were timed by his clock. Then how came it that he made the great discovery?

It was a mouse that did it coupled with the fact that Matthew had to stay in bed for a week with a bad cold.

Although he knew that she was a downright gonnerhead he had to trust Mary to perform the evening ritual; now when she approached with the key a little mouse, who, like a good mother had reared a family in the case, put her head out to see what the unusual stillness meant; she missed Matthew's thumping tread.

At the sight of the little beady eyes Mary was too frightened to proceed and so the clock was unwound.

Next morning to her utter astonishment she heard Grandfather saying in his usual voice tic-toc, tic-toc, and this went on until Matthew appeared on the scene a few days later when, in great trepidation, Mary confessed. The game was up! What a shock! Farmer Mears found the daily ritual had been unnecessary and now only a dull, anaemic candle was left; his world had fallen in ruins about his ears, even the brilliant sheen of the copper candlestick brought no light to his dulled senses.

Then his wife said in pleading accents "Don't ee take on Matty". She went on to say they could now take a holiday together, they could even have a second honeymoon.

Did I say Matthew was a regular Churchgoer; I think I hinted it. But at that he became completely diddlecombe; he rose up in his wrath and cursed the malignant deceit of his clock and as Grandfather ran down so Matthew's blood pressure ran up and that was the end of him.

There are several morals to this story.

Never take anything on trust; don't be persuaded by other people's tales; examine or look and test for yourself; don't become a machine; remember that every day you live you can learn something fresh; don't go to sleep; don't become a cabbage.

*The author qualified from Bart's in 1897.

An Expedition to Fernando Po in 1964

by JOHN RECKLESS

FERNANDO PO is a beautiful island of volcanic origin off the West coast of Africa, near Nigeria and the Cameroons. Originally discovered by the Portuguese explorer Fernao de Po in 1471, it was first called "Formoso" or beautiful. Ceded to Spain in 1778, the island became a British anti-slavery base from 1827 to 1843, and some of the Africans of coast and town still speak pidgin English.

Our expedition, mainly from University College, was to collect and study the fauna of the island, particularly reptiles and amphibians, and to carry out some geomorphology. We obtained our necessary financial and other support from many sources.

We journeyed by train to Cadiz, and then set sail in a Spanish mail boat which called at the Canaries, Monrovia and Lagos. After fourteen days we arrived at Fernando Po, to be escorted into the beautiful harbour of the



Fea's chameleon (Chamaeleo feae). This beautiful green chameleon is only found on Fernando Po.

main town, Santa Isabel, by a Spanish frigate. From the harbour wall—the edge of a partly sunken volcanic crater—one looks across the well planned, typically Spanish not African, town with its magnificent cathedral and rows of straight, tall palms towering above it. Behind the town the Pico de Santa Isabel rises to over 10,000 feet, and provides an awe-inspiring backdrop, especially when partly shrouded in cloud.

The honorary British Vice-Consul, as manager of the Ambas Bay Trading Co. and the only Englishman on the island, lent us a flat in the town. While there we awaited our advance stores, which were several weeks late, bought other necessities, and obtained hunting permits. We spent some of our time in Santa Isabel looking around the cocoa plantations—cocoa being the main crop. Nearly all land below 2000 feet in the north is given over to this. Some coffee is grown and also many bananas. The latter are only grown to shade the cocoa and the fruit is not exported. As a result bananas are only about 3/- for 200.

The island is forty miles long by twenty wide. In the south it is very sparsely populated, not cultivated, and has a very high rainfall of up to 400 inches a year. It was to the south that we wished to go and we were lucky to have a fine furnished bungalow with a large verandah, lent to us by the Spanish Government. This was at a hill station, Moka, at 4,500 feet above sea level.

During the five weeks at Moka we saw many of the wonderful natural features in the area. Around Moka there is a plateau which, except for two native villages of Malabo and Bioco, is used as a cattle farm. Leaving this one climbs either up or down through mountain rain forest. At about 6,000 feet there is the Lago de Biáio, where from the lip of a volcanic crater one can look down several hundred feet through the tree ferns to the lake below. The Bubies, the native tribe, would not take us below the lip, ostensibly as a path was not known, though probably because of local superstition. The lake shore was supposed to have a large number of snakes, and it was from near here

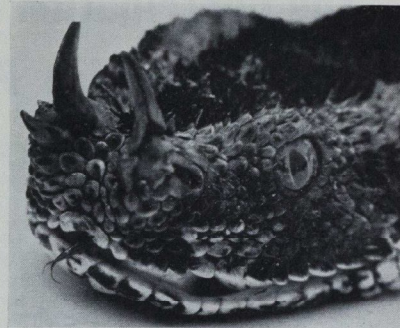
that the Nigerian farm workers brought us some rare ones. To the south of Moka the country was very precipitous and much split up by rivers and streams. In one place the biggest local river, the Iladyi, plunges about five or six hundred feet into a thickly forested gorge and then very quickly descends a further thousand feet. The continuous mist and cloud rolling up the valleys made such scenes very beautiful.

The daily, near continuous, rain of the wet season proved to be some handicap and prevented any visit to the remote, but supposedly spectacular, breached volcanic crater in the South West of the island, which is over a thousand feet deep and about a mile and a half across.

It did not stop all work being done, as the rain was nearly always confined to the morning. We were lucky enough to find a large number of galagos (bush babies) in the forest, and some of these were of a rare species—Allen's Galago. Little is known about these and we spent many nights studying them and trying to catch them. A lot of the time, this involved sitting on a fence in the early hours of the morning with a little warming Spanish brandy, waiting for the animals to come out of the forest. We were able to catch one. This is now in the London Zoo, one of the few, if not the only one, in a European Zoo.

We were able to collect many animals: rats and mice, shrews, frogs, toads, lizards, skinks, chameleons, snakes, monkeys, squirrels, an eagle and a tree hyrax. Most of our specimens were collected for the British Museum, and of these some were of species not previously found on the island, while one of the shrews was only the second specimen of its genus ever to be found in West Africa. We found two species of chameleon—one a beautiful green one, *Chamaeleo feae*, found only on Fernando Po—and a dirty brown one, *Rhampholeon spectrum*, whose name is an anomaly as it hardly changes colour. Frogs of many species were found, some rare ones not found there before. One was a brown and iridescent green tree frog (*Leptopelis calcaratus*) and another a red and black forest one (*Cardioglossa*).

One shrew we found was identified by the British Museum as a specimen of the genus *Myosorex*. Only one other individual of this primitive shrew has been found in W. Africa, at a high altitude on Mt. Cameroon. This shrew is common in East Africa. This suggests *Myosorex* was once widely distributed, but



Among the world's deadliest snakes is the giant rhinoceros viper (Bitis nasicornis). The sluggishness of the animal until aroused and its beautiful camouflage serve to make it more dangerous.

at the end of the last glaciation it was only able to survive in East Africa and now it appears, also in the highlands of W. Africa.

The hyrax is a mammal which lives in trees, but whose nearest relative is the elephant, although this may be difficult to believe. At night it makes an intense shattering scream, which slowly rises in pitch and intensity. Even though the noise is made by an animal a couple of feet long it is still spine-chilling.

Other animals were seen from time to time, like one of the small cats, the civet. We caught several snakes which were always handled with extreme caution and only once did we have any excitement. Then one of the members of the party first put his hand within three inches of one snake and two minutes later almost sat on a second. This was because the snakes were fleeing from a driver ant column and had been halted at the stream in which we were standing. Two more of these snakes were seen, one covered in ants, which were attacking anything in their path. This was why we were standing in the stream, as we can personally vouch for the viciousness of the driver ant.

This year four members of the expedition returned to the island and to the mainland. They succeeded in catching two females for the male Allen's Galago at the London Zoo. Another rare bushbaby—*Enoticus elegantalus*—was also sent to the Zoo, the first of this species to be kept in Europe. Unfortunately it has since died.

The Contribution of Radiology to the Investigation of a Patient with Dyspnoea

by G. SIMON

When a patient comes to his doctor and says he is short of breath, the elucidation of the cause seems a simple clinical problem. One asks if he has cough and sputum, and if the answer is yes, there is a tendency to say he has chronic bronchitis and leave it at that. This is unwise, and in the absence of an obvious cause, further investigations including a chest radiograph should be arranged. Since the causes of dyspnoea are many and can be grouped clinically into a number of categories, let us examine the contribution that radiology can make in each of these.

1. Dyspnoea due to cardiac disease. If a murmur is present, suggesting for instance mitral stenosis, a radiograph will be needed not to confirm the diagnosis, but to assess the severity of the stenosis. In this respect enlargement of the heart or alterations of shape, particularly a prominence of the left border just below the aortic knuckle (suggesting dilatation of the pulmonary artery, or if a little lower the left atrial appendage) will be valuable evidence; while dilatation of the upper lobe veins, or the presence of basal horizontal line shadows due to oedematous septa, will indicate a high mean left atrial pressure.

On the other hand, if there are no murmurs, a radiograph will be helpful to show the heart size, when any enlargement or alteration of heart shape or lung vessel size will call for a full cardiological investigation. This may indicate ischaemic heart disease or more rarely a myopathy. Dyspnoea, particularly in women, may be due to multiple asymptomatic small pulmonary emboli, leading to pulmonary hypertension. A clue will be a large heart with prominence of the pulmonary trunk just below the aortic knuckle. Dyspnoea may be worse at the time of periods, due to emboli from the uterine veins. The condition luckily is uncommon.

2. Dyspnoea due to anaemia. If a secondary anaemia is found and the site of bleeding is uncertain, a radiological investigation of the

alimentary tract is indicated. This may show a large hiatus hernia, a condition which is often otherwise without symptoms, or more rarely an asymptomatic gastric or duodenal ulcer. A barium enema may show a colonic carcinoma.

3. Dyspnoea due to excess of weight. If the patient is very heavy, as in adiposity, then the effort of moving about may cause dyspnoea. Nevertheless a radiograph of the chest should be taken to exclude additional factors which may add to the respiratory difficulty. A study of diaphragm movement may also be helpful to see whether this is limited by the fatness or whether, with an effort, a range of 3 cms. or more can be seen between inspiration and expiration.

4. Dyspnoea due to biochemical factors. Occasionally dyspnoea may be the patient's chief complaint in some cases of renal disease; but the finding of albuminuria or a high blood urea or both will be the reason for a radiological investigation of the urinary tract rather than the dyspnoea.

5. Dyspnoea due to lung disease. At last we come to the most obvious indication for radiology, but strange to say, often the most uninformative. For in a chronic bronchitic (without gross emphysema) or in an asthmatic, including even one whose periodic attacks of wheezy breathlessness are sufficiently severe to require steroids by way of treatment, dyspnoea is often present with no abnormality in the radiograph. This accounts for the rather cynical attitude sometimes taken to radiology in the investigation of dyspnoea. However, such a negative finding is in fact of considerable value. The prognosis is much better in a chronic bronchitic with a normal radiograph than in one showing evidence of complicating widespread emphysema. In the former case, in a series of patients under Dr. Oswald, some 80% of chronic bronchitics were alive after

five years, though less than 50% of these showed an emphysema pattern in the radiograph; while at ten years a very small number of those with emphysema were still alive.

In the case of asthma no reliable figures are available, but the prognosis of those few showing abnormalities in the radiograph is also poor at ten years. In severe asthma in children an overinflation picture is occasionally seen, the diaphragm being low, the heart narrow and vertical, the hilar vessels seem prominent, but unlike the appearances in emphysema, the actual intrapulmonary vessels appear normal. If asthma of late onset is complicated by pulmonary consolidations and blood eosinophilia, these may give rise to severe bronchitis obliterans and distal emphysema; while in others emphysema may occur either independently or as a complication of an independent chronic bronchitis supervening at a later stage on the asthma.

The emphysema pattern consists of a low flat diaphragm whose range of movement is usually less than 3 cm., a narrow vertical heart with a diameter of 11.5 cm. or less, perhaps a prominence of the main pulmonary artery below the aortic knuckle, normal or large hilar vessels, but small intrapulmonary vessels, with an absence of vessels in some areas. Such a pattern is almost always associated with dyspnoea. There may be a preceding history of cough and sputum, or the emphysema may be primary or idiopathic and neither caused by nor associated with chronic bronchitis.

Occasionally the radiograph will show a large, relatively translucent avascular area representing a bulla. If associated with widespread general emphysema, the benefit of surgical treatment of the bulla will be temporary; but if the bulla is so large it is compressing a lobe which might otherwise contribute to respiration, surgery may convert a patient completely crippled by dyspnoea into one who can do some worthwhile work. Radiology is therefore of value in selecting cases suitable for treatment.

Not uncommonly dyspnoea is the presenting symptom of a bronchial carcinoma. Why this should be so is uncertain in some cases, since the neoplasm may be quite small (some 2-3 cms. in size) and the lung loss slight. However, if a whole lobe or lung is collapsed and airless, the mechanism of the dyspnoea is easier to understand. Rarer causes of dyspnoea as the main symptom are fibrosing alveolitis (interstitial fibrosis), when a fine nodular pattern will be seen usually in the lower zones, and

the late stage of sarcoidosis, when massive areas of opacity may be seen in both lungs. Finally it must be remembered that any of the aforementioned conditions may be found in combination. Particularly common is the F.C.G. finding of ischaemic heart changes in patients with chronic bronchitis. The radiograph may be normal for both conditions, though the heart shadow may be rather large. In spite of respiratory function tests of severe airway obstruction, a chronic bronchitic does not trap air as in emphysema, hence the normal radiograph. However, those chronic bronchitics with a low peak flow or F.E.V.1 tend to run into trouble later with cor pulmonale; and the radiograph will then show a large heart and hilar vessels, but normal lung vessels. The number of patients with chronic bronchitis who develop emphysema is roughly a third, while roughly another third will have much airway obstruction and about half of these will, after a number of years, develop cor pulmonale which will eventually prove fatal. This will be accentuated in a small number who develop polycythaemia, and in them the hilar vessels tend to be particularly enlarged. Dyspnoea can occur when cor pulmonale, with or without polycythaemia, arises as a terminal effect secondary to other pulmonary diseases, particularly bronchiectasis, and occasionally in fibrosing alveolitis. In a few middle-aged women there may be chronic bronchitis and pulmonary embolic obliterative arterial disease, and perhaps functional vaso-constriction. Neither element in itself is sufficient to produce dyspnoea, but the combination often causes severe disability and eventually right heart failure.

True difficulty in breathing rather than breathlessness will suggest a main airway obstruction, and a radiological examination may show a mediastinal mass compressing the trachea, or tracheal narrowing from the scarring of old tuberculous glands, or an anomalous vessel such as a double aortic arch or retrotracheal right subclavian artery.

Acute dyspnoea may be the presenting symptom of a spontaneous pneumothorax, especially in a patient whose respiratory reserves are slight, and the radiographic findings may be the decisive factor in the diagnosis.

In conclusion, it is felt a careful scrutiny of the radiograph may often contribute much to the understanding of a case presenting with dyspnoea, and the value of even a normal radiograph should be appreciated when considering the prognosis.

at Charterhouse

There has been a major reorganisation of the second M.B. course at the Medical College. The October intake of students—one of the largest in the College's history (112 students)—is already experiencing the effects of some of the changes.

Essentially there are two changes. First there is the extension of the second M.B. course from five to six terms. This lengthening of the course has been for some time one of the policy recommendations of London University to its medical colleges. St. Bartholomew's is now alone among medical colleges in the University in having the extended six-term course. The second change is a reorientation of the formal teaching time allotted to the departments involved. The time allotted to Biochemistry and Pharmacology has been substantially increased. Physiology has a small increase. These increases are counterbalanced by a decisive reduction in the time allotted to the teaching of Anatomy.

These changes give to the course a new balance of emphasis within the three conventions of formal teaching employed: lecture, practical and tutorial. The number of lectures during the first term has increased: Biochemistry from 3 to 4, Physiology from 2 to 3, while the numbers of lectures of Histology (1) and Anatomy (2) remain the same. However the total number of lectures over the whole course has only been slightly increased. Time for practical work has been decreased; in particular, anatomical dissection time has been reduced from 9 to 7 hours per week. The use of the tutorial system has been greatly extended by the Biochemistry and Physiology Departments. This is balanced by the regrettable loss of the weekly Anatomy tutorial. The introduction of a study period of three hours is a new feature.

The implications of these changes are considerable. There are several important effects on the examination system of second M.B. At the end of three terms there will be a College examination; if a certain standard is not attained those below it may be asked to leave. In the second M.B. examination itself at the end of six terms, Anatomy, Biochemistry and Physiology will be treated separately. It will now be possible to be referred in one subject only, where previously if one subject was failed it was necessary to take all subjects a second time.

The cut in time available for anatomical dissection means that demonstrators in Anatomy are now undertaking part of the dissection for the students. The number of Anatomy vivas has been cut from four to two a term. The total number of teaching hours of the staff has not been increased as a result of the extension by a term; this being largely due to the introduction of the weekly uninvigilated three hour study period. Over the whole course the time devoted to such study periods may be further extended.

A further implication of this course is that there will only be one Clinical intake per year. In previous years the intake has been staggered, with the students from Cambridge and those from the Medical College here who passed second M.B. second time, entering six months later than the main entry from Charterhouse. This, combined with the increase in numbers of preclinical students, seems likely to increase the strain on the teaching facilities at the Hospital.

The extension of the course does not affect the chances of individuals going on to take a B.Sc. in either Anatomy or Physiology, and may improve the chances of being accepted for a Biochemistry B.Sc. which was not previously possible.

This is the first major change of the second M.B. course for many years. The phenomenal development in recent years of the sciences which underline medicine has vastly increased the amount of scientific knowledge necessary to the practice of modern medicine. This increase had inevitably turned the shorter second M.B. course into something approaching a cram course. The improvement by a term in the amount of time available to achieve the required standard is the most important advantage of the change. The development of the tutorial system and the introduction of the study period similarly are advantageous. This extension of the time to be used at the discretion of the individual student is welcome. It gives him more chance to assimilate for himself the theory of the rapidly growing sciences which are the background to medicine, and more chance to exercise and develop individuality and choice in his work. To give him this choice must be one of the major aims of a university medical education.

THE CHRISTMAS



Twelve Meanings For Twelve Nights

by Jeremy Davies

Although bizarrely anxious that the children should believe in Father Christmas, most adults don't even believe in Christmas itself any longer. At least that's one way of putting it. But if one accepts common usage as philological guide, then it is just that there are several meanings of the word; and I think it's best not to reject these meanings and insist on the Christian as the sole one, but to accept them as part of the mosaic. They are the modern equivalent of the tax degree of Augustus, the refusal at the Inn, the massacre of the Innocents.

Of all painters, Hieronymus Bosch would have painted it best—I imagine it all on one canvas: a fanatic to whom Christmas means Factor IX gazing up at the sacred heart for signs of atheroma; the animals of the island in the left-hand corner, their deformities delineated with agonizing precision; Father Bach coming down the chimney with a sackful of cantatas; and so on. All I can offer in place of such a picture is a lexicon and the hope that it will come to life at some time over Christmas. Perhaps when the gargoyles have finished their Auld Lang Syn and the paper streamers are trailing, these dry facts will dance together in the brain and one will see it all—not a dishonest Dickensian dream, but the irony and the horror and the hope of a real Christmas, ancient and modern.

C. Day: Dec. 25th: chosen in A.D. 274 by the Emperor Aurelian as the birthday of the unconquered sun, which at the winter solstice begins to show an increase of light. At some point before 336, the Church at Rome established the commemoration of the birthday of Christ, the sun of redemption, on this same date. The traditional customs connected with Christmas have been derived from several sources as a result of this coincidence of the feast of the Nativity of Christ with the pagan agricultural and solar observances at midwinter.

C. Factor: a thromboplastin activator in blood plasma, lack of which causes a form of haemophilia in males; named after the first patient with the disease who was studied in detail.

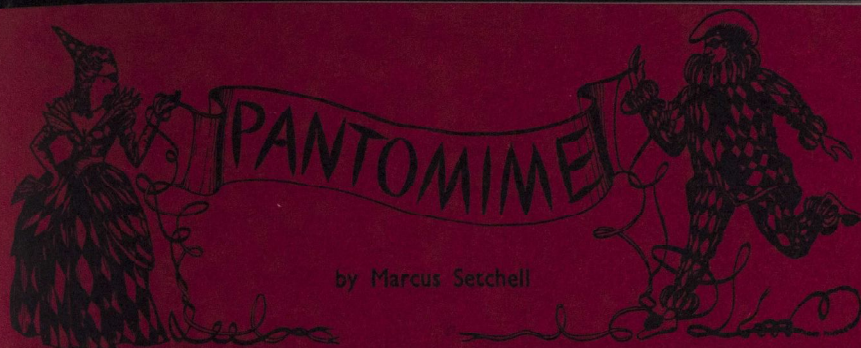
C. Fairy: placed on top of the C. Tree; a symbol of fertility; associated with the hermaphroditic Principal Boy who is the star in all the pantomimes (cf. *B.M.J.* 1275/48 on Peter Pan as an endocrine allegory—the thyrotoxic crocodile

with his alarming nervous tic chasing the diabetic Captain who, in turn, is after hypogonadal Peter, etc.)

- C. Father:** Bishop Nicolas of Myra in south-western Asia during the fourth century; his subsequent fame apparently due to his having saved three girls from prostitution by throwing three bags of gold as dowry into their window at night; the patron saint of pawnbrokers and merchants as well as of children, hence his commercial work is not entirely unjustified. In Italy they have a female Santa Claus, La Befana.
- C. Humphries:** celebrated Q.C. (especially murder cases) and Zen Buddhist.
- C. Island:** the largest atoll in the Pacific; discovered on Christmas Day by Captain Cook in 1777 and annexed by Britain in 1888; has been the site of two series of nuclear tests, U.K. 1957-58 and U.S.A. 1962-63; since when, stories of ghastly genetic abnormalities in the animals and plants of the island have filtered back.
- C. Oratorio:** work for soloists, chorus, and orchestra by Bach, 1734, in the form of six cantatas—the first for performance on Christmas Day and the others to follow on particular days up to Epiphany.
- C. Rose:** white-flowered hellebore blooming Dec.-Feb.
- C. Snow:** cocaine (addicts' slang).
- C. Spirit:** a phrase analogous to Sunday Painter; may be summarised as meaning 'Ale and Farewell'; the exact opposite of Rimbaud's vision: 'Quand irons-nous, par delà les grèves et les monts, saluer la naissance du travail nouveau, la sagesse nouvelle, la fuite des tyrans et des démons, la fin de la superstition, adorer—les premiers!—Noël sur la terre! Le chant des cieus, la marche des des peuples! Esclaves, ne maudissons pas la vie.'
- C. Tree:** in the 8th century, St. Boniface dedicated the fir tree to the Holy Child to replace the sacred oak of Odin. Evergreens had long been symbols of eternal life (e.g. mistletoe was sacred for this reason among the Druids).
- C. Wallaby:** game played exclusively among the convicts on Christmas Day, originating circa 1831; a wallaby was placed in the centre of the ring and with great ritual the convicts hurled their manacles at it; thus the beast died a sacrificial death in the cause of freedom.



AS A MATTER OF FACT IT'S MY HOUSE SURGEON—A TRIFLE OVER CONFIDENT OF THE SUCCESS OF THIS BLASTED ACTION GROUP



by Marcus Setchell

It did not matter that the scenery, the costumes, the songs, and even the story were the same whatever the pantomime, Year after year, when the excitement of Christmas was beginning to flag, our exuberance was rekindled by the prospect of being taken to see Toad of Toad Hall or Mother Goose or some such tale at the local theatre. All day the excitement built up until finally, scrubbed and polished and wearing our new Christmas ties ("and are you *sure* you've got a clean hanky?"), we set off in the old Morris Eight for the 5 o'clock matinee. As we got nearer our bubbling spirits gradually subdued, until sitting in our seats we were positively awe-struck by the thought of the spectacle we were about to see. At last the house lights faded, the safety curtain rose and an electric organ struck up the overture. Stomachs twisted with every note and our hearts galloped until suddenly and miraculously the stage was filled with the most beautiful, brightly costumed girls imaginable, and their song seemed like that of angels. And then amidst gales of laughter in praiséd the figure we had all come for, the Dame, magnificently robed and with a voice like a loughorn. From that moment it all became a blur of childish wonder, with fairies and princesses, witches and devils, chases and custard pies, of haunting scenery and the final thrill of going up on to the stage to sing with the company.

When our parents talked afterwards of Harlequin and Columbine it meant nothing to us. We did not realise that the episode in every pantomime where the heroine and her lover are chased by an irate father, and aided by some buffoon, was part of the traditional harlequinade. The characters of the Harlequinade, Harlequin, Columbine, Pantaloon and Clown were introduced by the Italian *Commedia dell'Arte* in the 15th century, though the roots of pantomime go back to Roman times. In the 2nd century A.D. Lucien summed up the qualities of a pantomime player: "He must have a sound knowledge of music and mytho-

logy, a prodigious memory, extraordinary sensibility, and a perfect body with athletic strength and suppleness". Prodigious indeed. Quite when pantomime first reached England is difficult to estimate but it is interesting that the famous Lupino family of harlequins made their debut at Bartholomew Fair in 1642 in "Bel and Dragon, newly arrived, besides several Jiggs, Sarabands and Country Dances". Probably the first true "harlequin" pantomime was that produced by John Rich at Lincoln's Inn Fields Theatre in 1717. Called "Harlequin Sorcerer" it was a double plotted play with a harlequinade dumb show between acts. It was not until the 19th century that conventional fairy tales were included in the Harlequinade, when Joseph Grimaldt, the King of Clowns, produced Mother Goose at Covent Garden. In his pantomimes the lovers were miraculously transformed into Harlequin and Columbine, her father into Pantaloon and the servant into Clown (now of more importance than Harlequin), and the traditional chase ensued.

Change was not well received in the pantomime and when speech was first introduced one critic observed: "It is called a speaking pantomime. We had rather it said nothing. It is better to act folly than to talk it." The spoken word prevailed however, and by the 1840's Sadlers Wells, Drury Lane, Covent Garden and any self-respecting theatre were producing such pantomimes. What a different picture is revealed today. Peter Pan once again opens at the Scala with Sylvia Sims in the lead. The Westminster Theatre has Peter Howard's Give a Dog a Bone, and the London Palladium is presenting Babes in the Wood starring Frank Ifield, Sid James, Roy Kinnear, Kenneth Connor and Arthur Askey, with music and lyrics by the Shadows. The Golders Green Hippodrome has Cinderella, Sally Miles is producing Treasure Island at the Mermaid once again, and that's all. Has Frank Ifield those Lucian qualities of the pantomime, and shall we see Harlequin chased into a grotto? No, but we must not resist the change of time.

Anatomy' of The Royal Hospital of St. Bartholomew²

by Retroscope

A Potted History

In the year of grace 1123 Rahere, formerly *jongleur* (jester-cum-minstrel¹) at the court of King Henry I, founded both the Hospital and the Priory Church of St. Bartholomew in gratitude for his deliverance from the jaws of death². The two foundations remained inseparable³, though frequently at loggerheads, until the Dissolution of the Monasteries in 1539 at the decree of the tyrant King Henry VIII, Defender of the Faith. The Hospital passed briefly into the hands of this quixotic monarch, but by Letters Patent of 1546 it was restored to the City of London after much petition⁴.

At the time of the Refoundation there were three surgeons to the Hospital—all members of the Company of Barber-Surgeons—but the first physician, Dr. Roderigo Lopez, was not appointed until 1562. The physicians weathered an inauspicious start⁵ to gain increasing authority; by 1620 it had been established that no surgeon was allowed to operate or give 'inward physic' without their prior permission.

Bart's survived those three great Restoration Dramas—Plague, Fire, and the Dutch up the Medway—to reach the quieter waters of the eighteenth century and beyond. Recent tribulations—the blitz, the dispersal to Hill End, and the National Health Service—have been negotiated with equal panache. The Hospital has grown steadily to reach its present day size of 814 beds. The works of its clinicians—William Harvey, Percivall Pott⁶, John Abernethy, James Paget⁷, Thomas Horder and their colleagues—have always ensured that its reputation has kept in pace.

London, E.C.1.

Bart's still stands where first it was planted, but contrary to popular belief the only buildings to remain from Rahere's day are parts of the cloisters and church of St. Bartholomew-the-Great. The adjoining site of Smithfield (Smooth Field), initially "a dank and fenny place", was soon to become the centre of much excitement. Here in 1305 Sir William Wallace was brought for execution, and here too in 1381 Wat Tyler was felled by the Lord Mayor and afterwards dragged from the Hospital and summarily despatched. The notorious Bartholomew Fair was celebrated annually at Smithfield in the month of August, until banned for its roughness and licence in 1855. Roast pork (Bartholomew Pig) was a regular feature of the fair and achieved immortality in Shakespeare⁸.

The Hospital was immensely fortunate in obtaining the services of the architect James Gibbs to undertake extensive rebuilding in the years following 1730. William Hogarth contributed the two murals for the decoration of the Great Staircase. The Square and Fountain date from 1859, and our own century has witnessed many additions and alterations within the precincts of the Hospital. Bart's remains unique in one respect, that since 1546 the Hospital has constituted its own parish of St. Bartholomew-the-Less, under the care of the Vicar⁹ or *Hospitalier*¹⁰.

1 Anatomy at St. Bartholomew's Hospital of course is not at the Hospital at all, but at Charterhouse.

2 Synonyms: *Bart's* (desirable) *The Royal Hospital* (valid but snobbish), *St. Bart's* (deplorable), *Bart's Hospital* (tautological).

3 The Church formed quite an attraction for reformal characters in Plantagenet times (viz. Thomas à Becket); nowadays Rahere, like other serious-minded comedians, would probably have stood for Parliament.

4 Encountered on a pilgrimage to Rome—an early victim of 'Mediterranean tummy'.

5 Hospital and adjoining churchyard entered admirably for the mediaeval patient's every need.

6 There is a disgraceful heresy, emanating from south of the River, which attributes this generous action to advancing *dementia paralytica*, i.e. *spirochaeta* action in the royal brain.

7 Lopez, alas, was hanged, drawn and quartered at Tyburn in 1594 for his alleged complicity in a plot to poison the Virgin Queen.

8 Of ankle fracture, puffy tumour and spinal tuberculosis (paraplégie Potiquet) fame.

9 Related by eponym to the diseases of nipple and bone.

10 "Thou whoreson little tidy Bartholomew - boar-pig", Doll Tear-sheet affectionately to Falstaff (*King Henry IV, Part II*).

11 The Vicarage Club, under the Sexton's tender care, still caters for the needs of deprived parishioners.

The Constitution

The current President of the Hospital is H.R.H. The Duke of Gloucester, K.G. Since 1948 the Treasurer and Board of Governors of Bart's have been appointed by the Minister of Health. Mr. Michael Perrin, C.B.E., succeeded Sir George Aylwen, Bt., as Treasurer in 1960. There are 28 Governors on the Board, of whom 10 are members of the Consultant Staff of the Hospital. Every year since the middle ages the Governors have made an annual tour of the Hospital on View Day¹². The chief executive officer of the Hospital is the Clerk to the Governors.

The Honorary Consulting Staff of Bart's is at present 30 strong. There are 76 consultants¹³, 31 senior registrars, 19 registrars, 11 junior registrars, and 42 housemen. Bart's can muster 11 professors¹⁴ in all, 4 clinical and 7 preclinical. Finally there are an indeterminate¹⁵ number of readers, lecturers of various breeds, demonstrators and research assistants.

Bart's Nursing School is in two parts with the preliminary training in the wilds of Hertfordshire. There are 480 student nurses at present with a further 119 in their fourth year¹⁷. There are 35 wards to be staffed at Bart's and a total of 95 sisters, with 82 nurses of fifth year status and above. At the top of the pyramid are 3 assistant matrons, the Deputy Matron, Miss B. K. Harper, and finally Matron¹⁸ herself, Miss J. M. Loveridge.

The Medical College

Nobody seems to know when the first students came to Bart's but certainly by the sixteenth century there were a number of young men apprenticed to the surgeons of the Hospital. The training of a physician was a more gentlemanly and academic pursuit involving an extensive university education, first at Oxford or Cambridge and often subsequently on the continent. By the end of the seventeenth century a library had been established for the medical students at Bart's, but there was little formal teaching until Abernethy began lecturing in 1788. The Medical College became a constituent part of the University of London in 1839, and in 1921 it received its Charter of Incorporation. The College acquired the site of the Merchant Taylors' School in Charterhouse Square in 1933. This property in fact had originally been given to the Hospital in 1187, but was sold to the Carthusian brethren in 1370¹⁹. Most of the buildings on the site were destroyed by enemy action during the last war; College Hall was built in 1952 and the new Physiology block five years later.

The first Dean²⁰ of the Medical College, Sir Holbut Waring, Bt., was appointed in 1904. The present Dean, Mr. John Cope, is the seventh to hold the office. The present Warden of the College, Mr. Martin Birnstingl, has seventeen predecessors stretching back to Sir James Paget in 1843.

There are 294 preclinical (including 35 dental) and 413 clinical students²¹ at Bart's, making a grand total of 707, although this figure includes those who have recently taken Finals. Of the clinical students 8 are from Oxford and 62 from the Fens.

Of course the soul of the medical College lies neither at Charterhouse, nor at the Hospital²², nor yet even at Chislehurst; it flits about according to the fashion from the Hand and Shears to the Doctor's and back again to the White Hart ("anaemia clinic"²³)—the most strategically placed of all.

12 Pronounced like *viewallier*, but dealing of course with spiritual food; although before 1653 the hospitalier was in fact also responsible for the hospital catering.

13 Nowadays the purpose of View Day is for the Hospital to review the Governors rather than *vice versa*.

14 The combined Consulting and Consultant Staff hold the following honours: 1 baronetcy, 1 knighthood, 2 K.C.V.O.'s, 1 C.V.O., 1 C.B.E., 3 O.B.E.'s, and 1 M.B.E.

The following doctorates are held: Medicine 47, Philosophy 3, Science 2. In addition there are 18 Masters of Surgery, 45 F.R.C.S., 29 F.R.C.P., 8 M.R.C.P., 10 F.F.A.R.C.S., 7 F.R.C.O.G., 7 F.F.R., and 5 F.D.S.

15 Including Chairs of Mammalian Morphology and Physics, but regrettably not of Gynaecology, Paediatrics or any other of the clinical specialities.

16 In fact not so much indeterminate as undetermined.

17 It is of some interest that there were ten married women among those recently awarded their Four Year Certificates (ex 79).

18 Matron was initially appointed to supervise the laundry of the patients and their linen, and to keep the drunkenness and scandal among the nurses within reasonable limits.

19 In 1349 it was used as a burial ground for the victims of *Pasteurella pestis*.

20 It should be clearly understood that this is not an ecclesiastical office.

21 Famous students have included Percy Bysshe Shelley, Robert Bridges, W. G. Grace, Richard Gordon and Sherlock Holmes.

22 Ever since they stopped brewing beer inside the Hospital in 1768.

23 Although it might perhaps more logically be termed the "leukaemia clinic".

*medicine in literature***LORD ROEHAMPTON**by **Hilaire Belloc** (1870-1953)

illustrated by BTB

During a late election Lord
Roehampton strained a vocal chord
From shouting, very loud and high,
To lots and lots of people why
The budget in his own opin-
-ion should not be allowed to win.



He sought a specialist, who said:
'You have a swelling in the head:
Your larynx is a thought relaxed
And you are greatly over-taxed.'
'I am indeed! On every side!'
The Earl (for such he was) replied.



In hoarse excitement . . . 'Oh! My Lord,
You jeopardize your vocal chord!'
Broke in the worthy Specialist.
'Come! Here's the treatment! I insist!
To Bed! To Bed! And do not speak
A single word till Wednesday week,
When I will come and set you free
(If you are cured) and take my fee.'

On Wednesday week the Doctor hires
A Brand-new Car with Brand-new Tyres
And Brand-new Chauffeur all complete
For visiting South Audley Street.

* * *
But what is this? No Union Jack
Floats on the Stables at the back!
No Toff's escorting Ladies fair
Perambulate the Gay Parterre.
A 'Scutcheon hanging lozenge-wise
And draped in crape appals his eyes
Upon the mansion's ample door,
To which he wades through heaps of 'straw'.



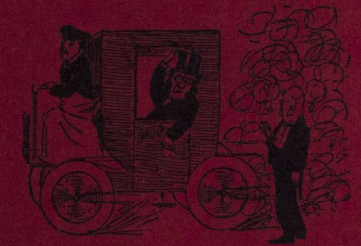
'This is the first and only time
That I have used this sort of Rhyme

And which a Butler, drowned in tears,
On opening but confirms his fears:
'Oh! Sir!—Prepare to hear the worst! . . .
Last night my kind old master burst.
And what is more, I doubt if he
Has left enough to pay your fee
The Budget—'



With a dreadful oath
The Specialist, denouncing both
The Budget *and* the House of Lords,
Buzzed angrily Bayswaterwards.

* * *
And ever since, as I am told,
Gets it beforehand; and in gold.



Away from the Stores

by Hilary McCrudden
and Liz Ferreira

As one become older, the thought of Christmas turns into a nightmare. Buying presents becomes an undignified hustle in the nearest department store. The fun of giving presents is lost and the festival becomes a ghastly chore. We decided to have a snoop around London before the rush and we found there were plenty of shops that sell interesting and fairly cheap things, without being too gifty or useless. We don't pretend to have a comprehensive guide but hope you gain a few ideas of what is available and where.

Christmas Cards we discovered, can be bought anywhere—from the local newsagents to the supermarket. However, **Liberty's** have a good selection in their basement. Also excellent choice exists at **Osluns**, New Quebec St. Those nurses who got to know this shop while at Bryanston, should revisit to see the increased stock of Scandinavian woodwork, glass, pottery and ovenware, etc. **Marshall and Snelgrove** are selling Oxfam, Spastic and Unicef cards, but all charity cards are available at **Orchard Court**, Portman Square. . . and of course there is the Journal card. There were plenty of ideas for presents in **Gear**, Carnaby Street. Change into appropriate clothing before venturing into this district. Very good enamel wear in bright colours and not too pricy—there was a surfeit of stuffed cats, dogs, rag dolls and elephants. They even stock Pollock's children theatre, which is still going strong. This shop is better perhaps for ideas—for instance there were old medicine bottles with glass stoppers selling for fantastic prices; these are still to be found cheaply in the markets, and make good presents for kitchen or bathroom use.

Galts toy shop opposite have very good sturdy children's things. The area around Church Street, Kensington, abounds in boutique-style shops, all selling much the same stuff, plenty of Scandinavian goods and pottery, and of course those stuffed cats again.

Antique Supermarket. This is well worth a visit, there are lots of possibilities for presents from prints of Bart's to Victorian kitchen dressers. A more social place is **Portobello Road**. We found **Camden Passage**, N.1. (parallel with Upper Street) rather expensive, but the market on Saturday is also worth visiting, especially for jewellery and pocket watches. Walk through the passage to the **Raille Gallery**, Islington Green, for a large selection of prints of old London, including all the hospitals. A couple of minutes walk from the main gate of Bart's, first right off Old Bailey, is the **Old Bailey Boutique**—a tiny shop specializing in old prints and books of London.

Chanelle Gift Shop, Knightsbridge, have a good selection of gifts for everyone, especially for those who already have everything! Contrary to its appearance and location, it is not expensive; particularly good value are glasses from 1/9d. Whisky or water tumblers cost 3/9d. At **Heals** ("Eve's being tempted again") in Tottenham Court Road one can find everything for the modern home; there is a splendid gift department with excellent and unusual kitchen equipment, both practical and decorative. In the same road **The Blind Institute** have all sorts of basket ware—from baby's cradles to dog baskets. **Kenneth Pratt Ltd.** on the ground floor of Charterhouse Chambers offer pottery, lamps and glass to Bart's nurses at wholesale prices.

With any money left visit **Evansky**, North Audley Street, for super hair-do. For Christmas clothes, try **The Kouti Boutique**, Orchard Street, W.1.—large collection of inexpensive dresses in mod and more sophisticated styles.

Bazaar, Knightsbridge; don't be put off by expensive facade—some clothes are rather pricy, others very unusual, reasonably priced and not too kinky. **Gillian** of Holborn are very good for separates.

A Female Figure with a Child

by Tim Wheeler

*An Image filled with majesty
To represent the Undefined,
The Universal Mother—She—
A Female Figure with a Child.*

Hilaine Bolloc.

It is in the nature of our age that most people are able to be fairly dispassionate when faced with any form of Christian art. Today the three elements which are contained in any painting of the Madonna and Child may be assessed and valued as we wish: there is the idea of a mother with her child as a quite natural and human expression of life; there is the pictorial appearance which the artist successful or otherwise gives this idea. . . . his use of colour, form, the relationship between the two figures; and then there is the painting as an illustration of the Virgin and Child of the gospels. To see clearly each element for what it is, is perhaps our privilege, for it has not always been so—different periods have considered one aspect only to be all-important.

Rather strangely it seems that as a subject for painting the relationship of a mother to her child was not developed until the Christian era, its introduction at this stage was directly related to the desire of the Orthodox Church to represent one of the dogmas central to its faith. The emergence of a coherent Christian style occurred around the 5th and 6th centuries—its immediate origins were principally the fashionable but decadent remains of Hellenic art; and from the east, probably Syria, a healthier tradition of strong, bold painting which, in contrast to the Greek, freely altered the human image in the expression of its ideas. However it is undoubtedly true that the greatest inspiration of Byzantine culture must have come from the spirit of its own civilisation.

The earliest form of Madonna and Child, which appeared around the 4th century, fully exemplifies this primarily religious outlook. The function of these paintings or icons (εἰκὼν—image) was to transmit the teaching of the Church but they were also considered holy and sanctified images of the deity they represented. The icon in question (figure 1) is entirely symbolic; the Virgin presents the Son of God



FIG. 1.—*Mother of God Orans*

but there is no physical relationship between them. The gesture of the Virgin is of pre-Christian origin and one of prayer hence the name given to this type of icon, The Mother of God Orans.

There are many unanswered questions in Byzantine art among them the origin of the Hodigitria Madonna (figure 2) and why it should have been adopted in place of the Orans image. It is said that the original painting was done by Saint Luke, what is more certain is that cruder versions existed in Syria by the 6th century. In any case by the 9th century it was extensively adopted by the Byzantines. The icon



FIG. 2.—The Hodigitria Madonna

does show the start of some interdependence between the two figures—the Child being supported by his Mother's left arm. But there it ends: the faces express no intimacy; the disposition of the Mother is still towards majestic presentation while the Child already seems possessed of wisdom and manages to hold a scroll in one hand and to deliver benediction with the other. An extraordinary fact of this art is the anonymity of the artists and the way in which, as convinced believers themselves, they followed and reproduced an image acceptable to their theologians, suppressing presum-

ably their own inclinations to personal style. So again it is hard to account for the introduction of another Madonna and Child variant, which must have originated around the 10th century and is known as the Madonna of Loving-kindness (Figure 3). This icon is quite different to its predecessors and expresses by gesture anyway the tenderness and love between the figures—they are cheek to cheek; the Child clings to his Mother. But the faces remove any hint of sentimentality; the Mother in particular seems to be grieving, perhaps in



FIG. 3.—The Madonna of Loving-kindness

her knowledge of the coming Passion of her Son. As an image this icon did not become popular in the Byzantine world but it exerted a profound influence on Russian art and was willingly taken up by the Italian Renaissance.

The multiplicity of types of Renaissance Madonnas and Children—be they babes in arms, crawling, suckling, crying or whatever—reflects of course the values of another civilisation. Their artists gave back to painting precisely what the Byzantine ones had removed from it—humanism, the simple idea of a

mother and her child. This is not to say that the Christian element was forgotten but the means of expressing it were different. "Christ was shown to be Christ by virtue of his human perfection rather than by evocation of his divinity; and thus that characteristic feature was introduced into the iconography of Christ which was to be the seed of its future development and eventual decay" (*Images of God* by A. C. Bridge). Despite these changes in approach, the Byzantine images were still effective, for example Raphael's *Madonna del Granduca* (Figure 4) which Walter Pater described as "perhaps the loveliest of all



FIG. 4.—*Madonna del Granduca* by Raphael

Madonnas" is clearly based on the Hodigitria image with the important difference that the Child's right hand instead of being raised in blessing is pressed to his Mother's breast in loving dependence.

The Renaissance led to its own death in much the same way as did Greek art. Eventually it had no more to offer than naturalism, the representation of man and things purely on their own account. This is an attitude which has been whole-heartedly rejected by the artists of our own age. Of the disillusionment and apathy of the latter too much has already been said—for the Madonna it means that she

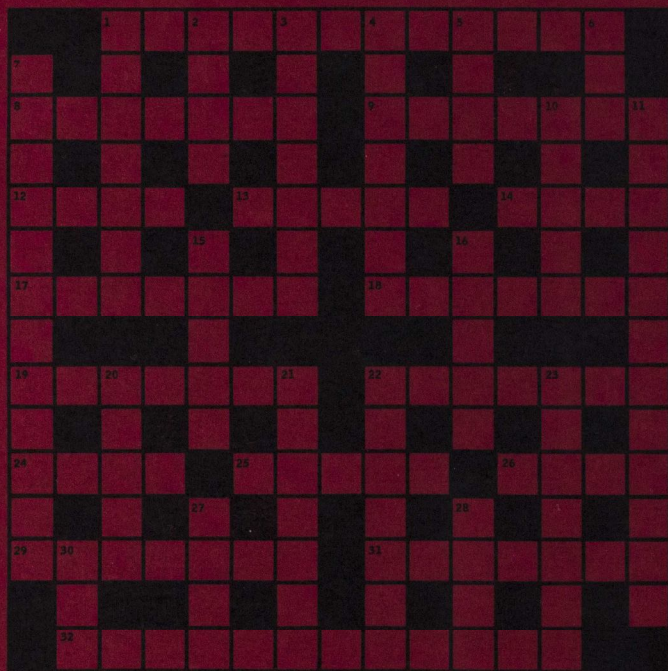


FIG. 5.—Study for a Madonna by Henry Moore

can no longer be seen against a background of generally accepted values; the artist rejects a theological Madonna as much as he rejects one which can only glorify man. The inspiration and life of the subject today lies in the formal and purely artistic relationships and contrasts between the two figures. The reappearance and discovery as satisfying of an iconographically ancient form is in this context most interesting; figure 5 is drawn from a maquette by Henry Moore. These considerations led Sir Kenneth Clark to write "I suppose it is just possible that certain motives are like the archetypal images of Jung, and can be rediscovered intuitively by an artist who strikes deeply enough into the collective unconscious."

Crossword

by Alan Gray



Clues Across

1. Commonly a P.A.H. derivative, but a divine way of seeing! (12)
8. The perfume blender's nightmare (7)
9. Passing close by with a cutter (7)
12. A jewelled isle in a watering-place (4)
13. Alexander's affliction? (5)
14. Sounds potable litter! (4)
17. None of these in 12 (7)
18. Two long feet! (7)
19. He's forgotten, just as mince is mixed (7)
22. A large papular eruption (7)
24. Bloody part of a garment (4)
25. Gerontius' wasn't caused by mescaline (5)
26. Free-wheel lazily? (4)
29. It races around a soapy acid (7)
31. An indispensable container for the well-balanced (7)
32. Did Nature's seamstress sew these on? (5, 7)

Clues Down

1. A carefully-balanced stone (7)
2. A slipper gets things moving (4)
3. ... and the body's may even faster in this (7)
4. The hot season? (7)
5. Fruit stuck in his maw (4)
6. An eager desire for oriental money (3)
7. Hardly appropriate fruit for 11 (5, 7)
10. The tale of five hundred hip-bones (5)
11. No 32 here! (6, 2, 4)
15. It's a libido! (2, 3)
16. Bubbles troubling Job? (5)
20. This shark isn't blue (5)
21. Lots of ears around here! (4, 3)
22. Sylvius' gone dry? (7)
23. Pot hooks? (7)
27. An opening in tin or aluminium sheet (4)
28. Three people mixed up in a riot (4)
30. A painful injection under the collar (3)

Solution on page 505

DILUTING THE ABRASIVE

by Tim Wheeler

Concluding a previous article—Wines from Eastern Europe—in the August Journal.

I had better start by salvaging something from a vigorous evening spent with **Russian Wines**. With incredible thoroughness the Russians have succeeded in reducing all their wines to a numerical system; they are assessed by taste and the numbers work through from dry to sweet wines. We started at Number 1, reached Number 4 and managed to overlook Number 2 in the process. Tsindaudali (No. 1) a white wine from Georgia brought some of us to tears; I have a note against it which reports "aromatic". Gurdjurni (No. 3) and Mukuzani (No. 4) are respectively white and red wines again from Georgia. Mukuzani was frankly abrasive, the exporters claim that it is the only wine able to hold its own with a curry—and they would certainly make a powerful combination. Gurdjurni was by comparison far smoother, someone even ventured "smoky". The labels definitely give an idea of the real thing so if it must be Russian wine—Number 3, served even then with a monumental curry, would appear to be the safest bet.

Something has gone rather badly wrong with the importing of **Turkish Wines**. Indeed it seems that this somewhat erratic trade has for the moment dried up completely. It took me some time to discover the penultimate bottle for sale in Soho, Guzel Marmara. Of course the fact that it was still there at all should have warned me but I can advise readers to leave the remaining bottle of this white wine well alone. Turkish Buzbag however is a pleasant red wine and worth looking out for when the situation improves.

Bulgarian Wines are similarly hard to find but they are around. Unwin's for instance stock them in certain branches though for some reason "we are not pushing them, sir". Quite evidently, for so unaccustomed are their salesmen to requests for these wines that they may need reminding that they stock them at all. This is a pity as the bottle of red Gamza which

I finally obtained was as smooth as a Burgundy—and it means that the other seven wines which are imported should be worth trying. Unwin's do two more: Grozden, a Riesling and Trakia, a Rosé. The Capital Wine Agency, who are the importers, should help you to find the rest.

Only five minutes walk from Bart's is Norton and Langridge's wine store in Wood Street (off Cheapside)—here you will find the best selection of **Rumanian Wines** in London. Segarcea Cabernet is right in the tradition of Balkan red wines—full, fruity and strong. Nicoresti, their other red wine, reacts rather unpredictably to shipping (our bottle was not unattractively effervescent) and it's certainly drier and more immediate than the Cabernet. The Tirnave Perla and Muscat Ottonel are the best of the white wines—but remember that the former is rather heavier than the label would have you believe and the Muscatel has a very unusual bouquet but is fine if you like that sort of thing. There are two other wines: a Riesling, not up to those from Yugoslavia and a Rosé called Sadova, an experience which while unique you will probably not want to repeat.

With apologies to the creator of Cardinal Punch I conclude with the following recipe, which the reader may find a not unseasonal additive for some of these wines:

Black Sea Beast

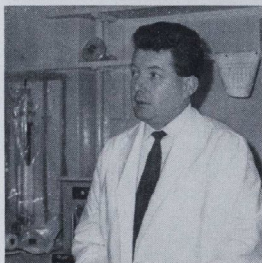
1½ lbs. sugar; ½ bottle brandy; ½ bottle rum; 2 siphons soda water; 2 bottles red wine*, 1 bottle of Dry Merrydown cyder and the juice of two lemons.

Serve strongly iced and mixed with lots of fresh fruit. One advantage of this mixture is that it will adapt itself well to the addition of Woodpecker cyder, an economic standby for the host, and also to those Spanish reds with which some guests alas purchase their entrance! For the original red wine* any one from: Castle d'Almain (Yugoslavian), Egri Bikaver (Hungarian), Buzbag (Turkish), Segarcea Cabernet (Rumanian), or Gamza (Bulgarian).

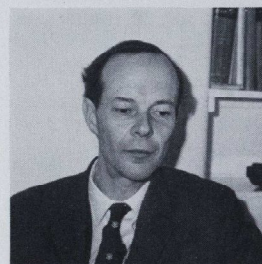
NEW CONSULTANTS 1965



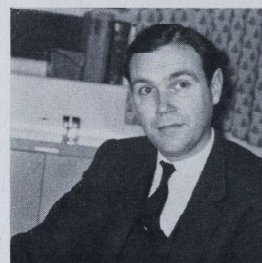
FRANK ROBERT COFFIN, F.R.C.S., F.D.S., Consultant Dental Surgeon, qualified from the Royal Dental Hospital in 1938, and then took his medical degree from the Middlesex in 1949. He has served for five and a half years in the R.A.F. and had appointments at the Middlesex and at Ealing. He currently holds appointments at the Royal Marsden and the Royal Dental as well as at Bart's. His main interests are malignant diseases and the Temporomandibular joint. He has been on extensive lecture tours in South America, North America and Russia. He lives in Wimbledon, and converts old cottages in Chichester when he is not sailing.



PETER VERNON COLE, M.B., Ch.B., F.F.A.R.C.S., Consultant Anaesthetist, was tracked down in a third floor room overlooking the meat market, the Anaesthetic Research Laboratory. He qualified at St. Andrew's in 1954 and worked as an anaesthetist at Oxford before coming to Bart's as tutor in Anaesthetics and lecturer in Physiology in 1962. Amongst other things he has been instrumental in the abolition of Minnitt's apparatus from labour wards. His research (he would like to see Bart's more research-minded) is concerned with abnormal haemoglobin dissociation curves in peripheral vascular disease, and changes in the lungs due to anaesthetics. He and his crystallographer wife and child live in a house in Islington which they are converting. Sailing and music are his two other loves.



PATRICK JOHN NIHILL COX, M.R.C.P., D.C.H., Consultant Paediatrician, was educated at Lancing College, St. Edmund Hall, Oxford and Bart's, qualifying in 1945. Having been Chief Assistant to the Neurology Department he turned his interest to children and went to Gt. Ormond Street. He then spent one year at Syracuse (New York) and now holds posts at St. Mary's and Paddington General as well as here. He is interested in the endocrine and metabolic disorders of the newborn. He would like to see Paediatrics play a more prominent role in academic medicine. He lives in Cheam with his wife and three children, and has a wide variety of outside interests including Economics, collecting and repairing antiques, opera and gardening.



ANTHONY MICHAEL DAWSON, M.D., F.R.C.P., Junior Consultant Physician on Dr. Black's Firm, qualified from the Charing Cross Hospital in 1951. He spent two years doing research at Massachusetts General Hospital, but is now very pleased he resisted the temptation to stay. He was Senior Lecturer in Medicine at the Royal Free Hospital before coming here. He divides his time between the hospital and his research laboratory in Charterhouse where he is working on intestinal absorption, an arrangement which he enjoys. He is also interested in teaching liver diseases. He lives in Highgate with his wife and two daughters, and likes to listen to opera when time allows.

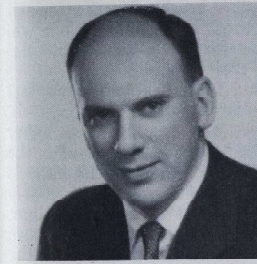
aurelius



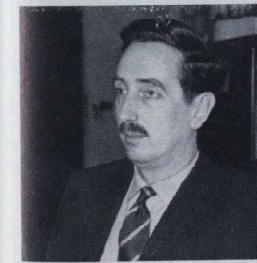
LANCELOT NEWTON 'JOCK' DOWIE, F.R.C.S., an E.N.T. Consultant, has got Bart's in his blood; giving it up would be like giving up smoking. He was educated at Glasgow Academy but came south to Bart's where he qualified in 1954. After house jobs here, he spent two years in the Navy in the Far East and Suez. Following 5 months in General Practice he held appointments at King Edward VII's Hospital for Officers and the Royal National Throat, Nose and Ear Hospital. He is particularly interested in micro ear surgery. Once a keen sportsman, he is now a supporter of Bart's sport, a motor racing enthusiast and an avid gardener. He has just moved to Wimbledon Park with his wife and two sons.



GORDON HAMILTON FAIRLEY, D.M., M.R.C.P., Junior Consultant Physician on Dr. Oswald's Firm is already well known to many. He was educated at Geelong Grammar School (thus setting a precedent), Marlborough College and Magdalen College, Oxford. He qualified at Bart's in 1954, and became an M.R.C.P. in 1958. He has done three years of haematology research, one and a half at Hammersmith Hospital, and the remainder here under Sir Ronald Bodley Scott. He has also worked at the Brompton. His post here includes research sessions in which he will pursue his interests in malignant blood diseases and immunology. Married with four children, he lives in Kensington and finds time for skiing-holidays, tennis and taking cine films.



NEIL ARTHUR JOHN HAMER, M.D., Ph.D., M.R.C.P., Consultant Physician to the Cardiological Department, qualified in 1951 from King's College Hospital. After House appointments he spent 18 months in Singapore, and then two years at the National Heart Hospital before going to the United States for two years. In 1963 he was appointed Assistant Director of the Institute of Cardiology and Hon. Assistant Physician at the National Heart Hospital. He has worked on Vector Cardiography and Pulmonary Gas Transfer. He is married with four children, and lives in Purley, Surrey. His hobbies are music and Natural History.



ANTONY FRANCIS WALLACE, F.R.C.S., was educated at University College School, went on to University College, then to University College Hospital, qualifying in 1950, and did a job as Anatomy demonstrator there, but has finally got to Bart's as Consultant Plastic Surgeon. In between he worked at St. Peter's Covent Garden and Queen Victoria Hospital, East Grinstead. He has done a three month tour of plastic surgery units in the United States, and is interested in the history of his speciality. He lives in Chelmsford (where he also has an appointment) with his wife, two children, two dogs, and eight budgerigars, which he finds quite enough to occupy his time.

Dr. R. B. Gillett, Consultant Anaesthetist, is at present away on study leave; we hope to publish a profile of him when he returns.

general practice in FOREST HILL

by M. O. Aveline

This is a practice of two thousand nine hundred in South-East London. It is an average suburban practice with mixed working, artisan and middle class, and also a minority of professional class; a small number of problem families and semi-illiteracy pose special problems. The G.P. is also visiting Doctor to Ladywell Lodge, a Welfare Home for the aged which houses some 650 infirm and chronic sick old people and includes two wards of 60 males and females each, nursing acute and bedfast sick and dying. In addition he visits Ladywell Residential Nursery which has 140 children aged 0 to 5 years who have been abandoned, deserted, orphaned, or in need of special care and attention due to some mental or physical abnormality or intolerable home conditions. The Doctor is an extrovert of South African extraction in his late forties. Despite the size of the practice, he runs it with the aid of a part-time assistant and a part-time secretary only. He has immense enthusiasm and zest for everything he does. Classical music, good food, horse-racing and a pride in the Springboks fill his leisure and yet he still finds time to attend refresher courses. He does not have an appointment system. Each attendance at surgery and the therapy given is noted and thus he has a detailed and readily available knowledge of each patient and is able to vary his manner to suit the individual.

He made me realise that even to-day it is possible to be a good family doctor and still retain one's own interests. The basic essential must be reciprocal trust between patient and doctor; the patient must be trained to respect the doctor and not to abuse his nominal spare-time. I was told that there was quite a difference in attitude between his patients and

The fourth in the series of articles based
on visits to general practitioners.

those belonging to a Group Practice. The Group Practice patients find it more difficult to establish a close doctor-patient relationship since they often have to see several different doctors for the same complaint either in Surgery or in visiting. When asked who their Doctor was, they mostly answered "The Group". It am not trying to suggest that this G.P. is an awful God-figure but that by virtue of his insight into human nature, his time is not abused, and that he deals more effectively with the 40-60% of purely functional cases in every surgery. He is disillusioned with the success of psycho-therapy for the socially inadequate and neurotic personalities, but will always listen to one, for as he says, "Who else have they to tell their troubles to?"

In medical school, for upwards of four and a half years one is instructed in diagnosis, differential diagnosis and treatment; in other words the Science of Medicine. However of the Art of Medicine, that of Management, little is said. The knife and the pharmacopoeia are only two weapons in the doctors' armamentarium; the doctor himself constitutes a third, more flexible and more efficient in treatment of the bulk of the nation's medical complaints. It may seem obvious that text-book theory should in each case be modified to suit the individual but the converse, that slavish attention to official dogma may actually cause harm, is not so self-evident. This is especially true in General Practice.

Admitted on the Friday to the Ladywell Residential Nursery were a young brother and sister. Their parents were serving a six month prison sentence for assaulting two younger children. If spoken to, the little girl would cower and begin to cry. The boy was almost autistic in his withdrawal; he would obey all

requests instantly but never smiled or spoke. They became agitated if separated and when together held hands in a silent sad communion. At bedtime on the first night instead of getting into bed they crawled underneath. On Monday, the boy had a temperature of 100° and was anorexic. On examination, there was slight tenderness in both iliac fossae, being more marked in the R.I.F. By Tuesday, his temperature was 103°; he was still anorexic and had not passed a stool. Problem:—the management of a pyrexia, mute boy with abdominal pain. Orthodox treatment would require transfer to

hospital but would certainly jeopardise the childrens' slowly developing trust in the staff. As emergency admission to the hospital could be arranged in half an hour, it was decided to rely on observation and symptomatic treatment. The following day, the temperature subsided and a large stool was passed. I feel that the patient's interests had been served by temporising rather than precipitate action. In hospital practice the disgruntled and mismanaged patient rarely returns to confront the doctor but the General Practitioner must live with the results of his and the hospitals' therapy.

Abernethian Society Meetings

Thursday 21st. October, 1965

"The Human Haemoglobin Molecule"

Dr. H. LEHMANN,
M.D., Sc.D., F.R.C.P., F. C. Path.

The meeting was opened by Miss Parveen Kumar, the President of the Society. After giving a brief account of the history of the Society Miss Kumar explained that the Society was run entirely by students and invited suggestions of subjects and speakers for the next programme of lectures.

Miss Kumar then introduced Dr. H. Lehmann who started by expressing his pleasure at returning to Bart's to address the Abernethian Society.

Dr. Lehmann gave a fascinating account of the structure of haemoglobin, and showed how the accessibility of the protein had been of use in discussing the way in which proteins are manufactured by the body. The evolution of haemoglobin was described, the substance being found in the central nervous system of the seahorse acting as a protective mechanism against reduced oxygenation. Different species seem to have developed a haemoglobin with physical properties tailored for their own particular needs.

Dr. Lehmann then described some of the techniques for separating different types of haemoglobin. The changes in structure which

occur in abnormal haemoglobins are in the globin part of the molecule which consists of a few chains of amino acids. The histidine molecules are now known to be the ones most commonly replaced in abnormal haemoglobins. This alters the position of negatively charged amino acids relative to the haem part of the molecule. Various abnormal haemoglobins were then described and reference made to the diseases which some of them cause.

The latter part of the lecture was devoted to work done very recently which resulted in the "cracking of the genetic code". The various combinations of three pyrimidines and purines which represent one amino acid in the code, are now known. Thus the structure of proteins can now be worked out from knowledge of their genetic make-up as well as splitting the molecule and identifying the various amino acids. This work was done by using the known structure of the haemoglobin molecule.

Meetings in December

Thursday 2nd. "Thoracic Surgery": Chairman, Mr. O. S. Tubbs, F.R.C.S.

Thursday 16th. Dr. R. Fox, M.R.C.P., D.P.M.: "Things my Hospital never told me".



Penguin Reviews



THE OCCASIONAL SCREAM

The Death and Life of Great American Cities, by Jane Jacobs; 8s. 6d. *Architecture*.

Miss Jacobs is an original thinker and as such she has produced a very thorough study, in which the values behind city planning are completely re-appraised in an imaginative and constructive manner. Of course her book is about America, but as many of the accepted doctrines of planning in the States are based on originally European concepts, for example those of Le Corbusier and our own garden city planners, her views are relevant to the growing urban population that we encounter in England today.

She regards as anathema the neat and beautiful designs of the drawing board, which so often disregard the complex and diversified needs of human nature. She points out for example that in Boston's North End, that is officially classified as a slum district, the incidence of crime is lower than for any other area in that city; whereas in the wealthier suburban districts of New York and Los Angeles it is not safe to venture out alone at night: "I live in a lovely quiet residential area. The only disturbing sound at night is the occasional scream of someone being mugged".

This is a small example of Miss Jacob's pungent style. She writes as a warm and intelligent woman more interested in human beings than in doctrinaire ideas. She is an acute and entertaining observer of the life around her and as such she has come to the conclusion, which is the main thesis of her book, that planners have in many cases failed. They have failed to pay attention to: "the need of cities for a most intricate and close grained diversity of uses that give each other constant mutual support both economically and socially."

Shaun MacLoughlin

WRINKLED FEATURES

The Face of Spain, by Gerald Brenan; 5s. 0d. *Travel*.

Spain leaves deep impressions on its visitors, personal impressions—affection, fascination, loathing, disgust. The reasons for each impression are legion and tend to get tangled up into one obscure mess—a personal mess that is not quite like that of anyone else. Spain is frustrating and tranquil, filthy and pure, garish and quiet, vivacious and lazy. Dogmatic opinions of Spain are too easily formed and those of others too easily resented as false.

The author of this book is well acquainted with Spain having lived there for some years and is an authority on the history, literature and politics of the country. He and his wife left Spain shortly after the outbreak of the Civil War in 1936, and did not return until 1949. This book is an account of that return, and takes the form of a travel journal.

The setting is Spain after 10 years of previous peace, still labouring heavily to reconstruct the self-inflicted damage of the Civil War, and some years before she started to titivate herself to attract the tourist traffic. The area visited is from Madrid to Malaga, with pauses at some of the main cities Toledo, Merida, Cordova, Granada and others. Take a description of the present, a reminiscence of the past, add a dash or two of history and a snatch of conversation with the locals for flavour, mix well and serve. That is the way it is done, generally speaking, and, generally speaking, the effect is interesting and alive.

Mr. Brenan's descriptive powers are not well formed, and the long tracts of description manage to be both clumsy and dainty at once—the faster they are read, the clearer the picture. The occasional political comments are disappointingly naive, from one who is an authority on Spanish politics, and do little more than inform us petulantly that "Franco is a

stinkpot!" The "travel journal" style at times comes close to being "personal-diary" style, and appears to be addressed to friends and relations or possibly to those who already know Spain. A sad mistake, since many readers may feel left out in the cold and lose interest in what is otherwise quite a colourful "Face of Spain".
Bob Kendrick.

SARTRE AND THE BEAVER

"The Prime of Life" by Simone de Beauvoir. 8s. 6d. *Autobiography*.

When I had completed my Memoirs of a Dutiful Daughter, no voice spoke to me out of my past urging me to continue the story. I had made up my mind to turn to some other task . . . Little by little I became convinced that from my own point of view, the first volume of my Memoirs required a sequel.

Autobiography is difficult to judge, for the content of a badly written biography may be enthralling, and conversely a beautifully written book may be a crashing bore. Mlle de Beauvoir's autobiography has no form, parts of it are retrospective, and parts are taken verbatim from her diary, but the whole makes fascinating reading. It is an enormously diverse book (it is 600 pages long) and its

appeal lies on many planes. Firstly, her life is inextricably wound up with Sartre's and part of the fascination lies in reading such an honest and frank account of their relationship.

So often militant feminists refute their end by ceasing to be feminine, but the Beaver seems to have made a rare success of retaining her freedom and independence whilst at the same time remaining a warm and emotional woman. Much of the book is about her friends, and the books they were reading, the plays they saw, and the discussions they had. Although many of the friends are unknown to us, her sensitive understanding of personal relationships and balance sustain interest. 'Friendship is a delicate structure—it can adjust itself to sharing in some respects, but in others it insists upon retaining a monopoly'.

Perhaps most interesting, it is a political history of the years which led up relentlessly to the war, and of the frustrations of war through to the joys of liberation. And then it is a travelogue, for the Beaver is a great hiker, camper and explorer of both France and neighbouring countries. Everything she does is done with tremendous zest and *joie de vivre*. It is this and her biting, at times sarcastic, wit which make the book so very enjoyable.

Marcus Setchell.

MEDICAL BOOKS

Anaesthetics

A New Look at Anaesthetics, with particular reference to Specialised Postgraduate Education, by J. Parkhouse, M.A., M.D. Pitman Medical Publishing Co., Ltd. Price 7s. 6d.

This book forms one of a series on a new look at medicine. The books are written by various authors who, according to the publishers—"have the experience to discuss their work authoritatively but are all young enough to be impatient of habitual attitudes which stand in the way of progress."

Dr. Parkhouse has not written a textbook, but an essay on his ideas of what might constitute a utopian state, or state of affairs in anaesthesia.

The author begins by discussing the present position of the trainee anaesthetist in the National Health Service, then outlines his plan for training and practice in Anaesthesia and finally gives his views on research and clinical anaesthesia. The reviewer feels a few pages devoted to discussing how the transition from present training methods to the author's utopian view could be achieved, would have made his ideas more acceptable.

Dr. Parkhouse rightly condemns the "rat-race" for consultant posts, poor research for the sake of

prestige and indiscriminate travel abroad before a basic postgraduate education has been completed. The author is all for simplicity in techniques and apparatus. He describes the "Boyles Machine" as a Victorian monstrosity which stands as a tribute to the ingenuity of manufacturers and the apathy of 10,000 users who, like Saturday night concert-goers, "know what they like and like what they know"—or think they do.

I found this book very enjoyable. It is stimulating, extremely well written, well produced and reasonably priced.

I am sure that every anaesthetist or would-be anaesthetist along with anyone interested in postgraduate medical education should read this book.
A. D. Marshall.

Examinations

How Not to Fail in Finals by John Hawkins, H. Wykeham Balme, and J. O. Robinson. J. and A. Churchill. 6s.

The six pass and nine higher qualifications gained by the authors of this book lead us to expect good advice if nothing else. In fact we are regaled by a feast of factual information, fundamental philosophy

and delightful wit which can be applied to a much wider field than examination expertise.

The book is divided into three sections, The paper, The Clinical and The Oral. In the first, general points such as the system of marking and advice on the general layout of the paper are followed by three specimen answers, one from each discipline. Similarly, part two starts off with general advice as to appearance, behaviour and dress (this should be compulsory reading for all students, male and female, beginning their clinical course), to be followed by advice of a more technical character on the actual conduct of the examination. Finally the mechanics of the oral are laid bare, together with a description of some of the apparatus traditional to this part of the examination.

The burden of this book is that a sufficient knowledge of the subject must be augmented by an intelligent preparation for the examination if the candidate is to do himself full justice. It is not, however, a brief substitute for two and a half year's clinical work. It is not entitled "How to Pass the Finals".
P. F. Borrie.

Medicine

A Pocket Medicine, by G. E. Beaumont, 5th edition. Price 20/- I and A Churchill.

Textbooks truly small enough to fit comfortably in the pocket fulfill a useful purpose; for students frequently have short periods of free time between lectures and ward rounds which they may profitably spend reading up their Medicine. This volume covers the whole field of general medicine in a systematic manner. The cardinal manifestations of each disease are given, the differential diagnosis is discussed and the treatment described. In such a short book as this, only the important and frequent causes of any disorder are described and rightly no attempt has been made to be exhaustive. Explanations are of necessity brief, so that what happens in a disease is described rather than how and why. Consequently, this book will be of greater value to students with some previous knowledge than to those starting their clinical course. The details of current treatment are generally good and emphasis has been placed on the specific measures to be taken. However, isolated deficiencies occur, as for example the inadequate descriptions of the currently used hypotensive agents and the newer diuretics. Where treatment is of little value the author says so, and avoids the error of listing treatments now known to be ineffective. The student will obtain a great deal of information from this book and will find it of considerable value as a pocket manual.

R. M. Buckle.

The Scientific Basis of Medicine: Annual Reviews 1965. British Postgraduate Medical Federation. Athlone Press. Price 40s.

The series of lectures on the Scientific Basis of Medicine delivered annually under the auspices of the British Postgraduate Medical Federation constitute a progressive survey of scientific research as related to clinical medicine. It is never possible to publish one of these lectures but each year a representative selection appears under the title of "Annual Reviews". The 1965 volume, like its predecessors, makes fascinating reading. Based, as it is, on a series of individual lectures, the book can not be considered to constitute a collection of

comprehensive reviews much less a reference text. Conversely much of the charm of the book lies in the very individual style of the various authors. Some chose to present their subject as an up-to-date documentation of scientific advances while others review the field in a more general, albeit more superficial manner. All are interesting, well-informed and, in general, lucid.

Contributions have been made by biochemists, physiologists, physicists, immunologists and clinicians. The range of topics covered is wide, extending from very basic studies on nuclear acids, trace elements and the properties of cell membranes on the one hand, to the epidemiology of mental disorders on the other. Physiological research is well represented by studies on lung changes at birth, regulation of cardiac output, muscle contraction, temperature regulation and hypothalamic and cerebral function. Extremely topical contributions on auto-immune disease and immunological tolerance have been made by Drs. Roitt and Doniach and Prof. Woodruff, authorities highly competent to discuss these subjects. Fascinating sagas of progressive research are contributed by Sir Charles Dodds on hormone studies and Professor Thompson on the pathological chemistry of demyelinating diseases.

The only serious criticism which can be levelled at this book relates to the chapter on sex chromosome abnormalities. This is an interesting and rapidly expanding field and one in which the author is well versed. Unfortunately the presentation of information is entirely too technical and presupposes that the reader is fully conversant with the terminology employed in studies of chromosome patterns. In consequence this chapter must make difficult reading for the average physician. It is of paramount importance for the advance of clinical medicine that progress in basic research be communicated to practising clinicians and it would be tragic should such communication fail because of the lack of a common language.

W. R. Cattell.

Fluid Balance without Tears, by G. L. Buntan; 2nd Edition. Lloyd-Luke Ltd. 5s.

This small (30 page) handbook, which can be read in one hour, provides a useful and amusing introduction to problems of Electrolyte and Fluid Balance.

Values are quoted in familiar units, viz. one firkin, two magnums etc. and good sense is talked about the day to day management of the patient on intravenous fluids. Acid base balance and renal failure are briefly discussed.

This book has little to add to the equally short and good accounts of the subject available in the standard textbooks, but the humour of the line drawings coupled with the analectic style of presentation makes light of a possibly soporific subject. This latter reason may justify the expenditure of the five shillings that the book costs.

J. E. A. Wickham

Exploration Medicine, edited O. G. Edholm, B.S.C., M.B., B.S. and A. L. Bacharach, M.A., F.R.I.C. Published by John Wright & Sons Ltd. Price 47s. 6d.

This book is primarily designed for those expeditions who have to manage without a qualified medical officer. However it will make absorbing and informative reading for those who are medically qualified as well.

Expeditions of exploration and research always run the risk of being forced to abandon their objectives due to ill-health. Good medical advice for travelling abroad, or on expeditions is very hard to obtain, because there are so many fields of medicine involved. This book fills this gap. Every aspect of expedition medicine has been covered, from simple dental health through to the psychological selection of personnel. The authors are all specialists, writing with experience about their own interests. Many of them are in the military services: this must be no accident, for they experience most of the problems of the explorer, as well as backing a great many. The experience they have gained is usually at a price, but by following all their advice one may never have to open a medical chest, as most illnesses, they show, are due to oversight or lack of taking sensible precautions. There are occasions, especially when describing the size, shape and siting of latrines, when the book tends to read like an Army Field Pamphlet, but it is none the worse because of that.

J. C. Richardson

Microbiology

Review of Medical Microbiology, by Ernest Jawetz, Joseph L. Melnick, and Edward A. Adelberg. 6th Edition. Lange Medical Publications; 453 pages. Price 45s.

This excellent book is concerned primarily with clinical microbiology—the pathogenesis of infectious diseases and the laboratory aspects of their diagnosis and management. Fundamental studies of microbial growth, metabolism and genetics are finding increasing practical application and these somewhat complex topics are dealt with concisely and clearly.

Anyone who proposes to restrict his duty of microbiology to the week before the examination, will find this book over-long for the purpose. Anyone else will find it a most valuable review of the topic which has undergone extensive revision since the last edition. It has one other great advantage. Unlike so many books today, the smile produced by the sight of the book will not be wiped off by the sight of the price.

F. W. O'Grady.

National Health Service

The National Health Service and You, by Gordon Thomas with Dr. Ian D. Hudson. Panther books 5/-.

This is a fact-packed cradle-to-grave guide to our Wonderful National Health Service. It is of exceptional importance to every British citizen. It says so.

But Oh dear it is hard work to get through and I can only recommend it as a work of reference for the dustier shelves in your bookcase. The authors nevertheless deserve to be congratulated on several points. To cover the whole NHS in itself is an achievement and they have kept a remarkably fair balance between the points of view of patient and doctor. Their historical facts are most interesting and the evaluation of the Welfare State is impressive. The shorter chapters especially that on Death are mostly very good although some would feel the dentist service deserves more than two pages.

The longer chapters can be very dull. The one on disablement is needlessly protracted. Some of the statements surprise "Today under the NHS any risk

that there might have been in having a baby at home has been removed." This is too much like propaganda for the masses and I am afraid that is the impression that the authors leave. A little less reverence and a little more useful criticism would have made this book readable.

C. J. F. Ll. Williamson.

Venereology

A Short Textbook of Venereology, by R. D. Catterall. 15s. paperback; 25s. boards. English Universities Press; 1st. Ed.

There are so many recent comprehensive textbooks of Venereology that any new one needs special attributes to justify itself.

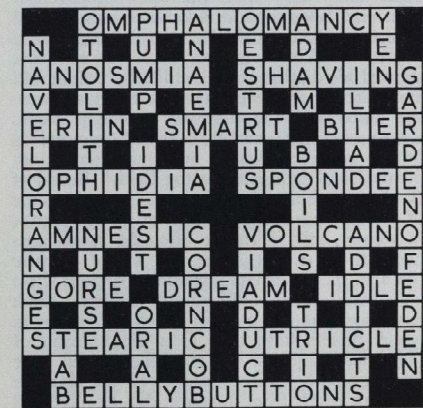
This book is well indexed and the general introduction is good but it contains nothing new or original and many traditional aphorisms are constantly repeated. It could have been an ideal pocket sized companion for the student as it covers all the sexually transmitted diseases but the text has been unduly padded. The black and white drawings should have been left out as many of them would embarrass a student on public transport and they have no teaching value, however they may well appeal to less sophisticated readers in underdeveloped countries.

The treatment of uncomplicated gonorrhoea in the male is very indefinite and he states that the treatment of the female is as for the male and the varied details are then repeated a second time. I do not agree that the metastatic complications of gonorrhoea result from a dissemination of the organism in the blood stream from a focus in the genital tract. It is generally accepted today that when they do occur they are due to concomitant non-gonococcal urethritis acquired at the same time as the gonorrhoea.

Serological tests for syphilis six months after treatment for gonorrhoea are unnecessary today, and have long been given up even by the most conservative venereologists.

I agree with his treatment of syphilis but his advice about patients future sex activity is really Victorian and most unlikely to be adhered to by any reasonable person.

A. Redmond.



SPORTS NEWS

Editorial

Boxing like many sports is passing through a very difficult period at the present time and its prestige as a sport is changing. There are many who will claim that it is on its last legs and many others such as Lady Summerskill who would be delighted were that the case; while there are still others who strongly feel that boxing will never ever receive that final knock-out blow, that despite its many shortcomings it will always prosper.

Certainly in the days of the great Joe Louis, Jack Dempsey, *et al.* there was no doubt in everybody's mind that boxing was a good and worthwhile sport. However, in the last few years since the retirement of that outstanding and unbeaten champion Rocky Marciano boxing has suffered numerous set-backs. There have been many ugly incidents and controversial decisions. Several years ago there was the sad occasion when Brian London having lost a points decision against Dick Richardson, showed his disgust at the verdict by lashing out at anybody and everybody within his reach, the outcome being that the post-fight scenes were more sensational than any of the previous fifteen rounds. London was justifiably condemned and punished by the British Board of Boxing. Recently there was an incredible case of the referee raising the arm of a negro boxer in victory only to realize after the contestants had left the ring that he had meant to raise the arm of his British opponent. Besides these and many other unfortunate incidents there have been quite a number of sad occasions in which boxers have died as a direct result of their head injuries. Possibly the public have become more aware recently of the damage that can result from punches, due to increased publicity in the press.

BOXING

Again the results of recent world heavy-weight contests have further added to the hastening gloom. After Marciano, first came Floyd Patterson who proceeded to lose the title to the Swede Johansson and then promptly to regain it, being the first man ever to do so. That was only the start because as soon as Patterson faced the only man he had avoided during his time as champion he was promptly knocked out in two successive bouts in record time by the seemingly formidable Liston. The final irony came when Liston was stopped by Clay in six rounds, as Clay had so correctly predicted, with the erstwhile champion failing to rise from his stool as the bell sounded for the 7th round (no world champion had ever thrown in the towel before). Clay has since proved himself to be an exceptional boxer and one has to admire him for his tremendous ability and skill, but his antics outside the ring have done nothing to improve the reputation of boxing.

Alas in years to come our present champions will hardly be remembered, Patterson as a ghost for his short comings and goings, Liston as a wilting old man and Clay as a controversial, unstable character. The once great sport now appears to be floundering in a mist of uncertainty. Today the skills and art of the sport seem but rarely to be demonstrated and the fight-game has become nothing more than a big profit-making concern for the idle few. Although boxing has always been a highly paid professional sport it is only in recent years that such emphasis has been put on the financial side at the expense of the game. Furthermore there is no one World Boxing Authority but two rival associations, the generally recognized World Boxing Council

which represents British and European views and the self-instated World Boxing Association whose ideas and policies only make a mockery of the whole organisation. Each recognizes different World champions and while two such authorities exist it will not be possible to lay down explicit policies and rules which would

undoubtedly help to overcome many of the present difficulties.

However, despite everything, boxing being what it is, it is always likely to attract the crowds. But unless radical changes are introduced the sport is doomed to a slowly declining and downward path from its former greatness.

GOLFING SOCIETY

The Thirtieth **Autumn meeting** was held at the Royal Wimbledon Golf Club, on Thursday, October 14th. Thirty-seven members attended, which is the highest number since the Society was founded. The competitions were played in the afternoon, as unfortunately the mist lay heavy on the course all morning. A large number gathered in the evening at the Dog and Fox in Wimbledon.

The competitions were won by the following Members:

The Milsom-Rees Cup (Handicap)

Winner: J. Fison 37 points (13)
 Runner-up: A. Dossetor 37 points (12)
 (Both J. Fison and A. Dossetor scored 37 points, but J. Fison scored 13 points against A. Dossetor's 12 on the last nine holes).

Sealed Holes

H. Bevan Jones	7 points
R. Fiddian	7 points
G. Hirst	7 points

Graham Trophy

(Scratch) A. Anderson	30 points
N. Bevan Jones	30 points

Both Members scored the same number of points in the last and first nine, the last six and the last three. By mutual consent and because the light had failed, the cup was awarded to Anderson by the toss of a coin.

The Summer Meeting will be held at the Sunningdale Golf Club on June 8th, 1966.

James O. Robinson,
Hon. Secretary.

SAILING CLUB

St. Bartholomew's are now the Inter-Hospital team racing champions.

In the final, against **St. Thomas's Hospital**, Tommy's were defeated by 38 points to 37½, a narrow victory, and well fought.

In the first race, excitement began early, with a Tommy's boat being forced onto the starting mark, and having to retire. Malcolm Green (Tommy's) took the lead, which he held throughout and was followed by the three Bart's boats, with the other Tommy's boat at the rear. Ann Yendell then unfortunately touched a mark, and retired. The positions remained unchanged and Bart's finished 2nd and 3rd, giving St. Thomas's a lead of 18½ points to Bart's 18.

In the second race, all started well, and after a tight beat, Doggett (Bart's) followed M. Green (Tommy's) round the first mark very closely, with the other Bart's boats 3rd and 5th. During the next two legs Geoff Doggett had a spell of glory, having overtaken Malcolm Green

(Tommy's), who sails for British Universities, but was soon overtaken again, and M. Green went on to win for St. Thomas's. Meanwhile, down in the field, the Tommy's back marker, Richard Hallett, had found his own private wind, and came racing up from well last into fourth position, leaving us in 2nd, 3rd, and 6th places, a losing sequence. However, on the last round we gained a place, and finished 2nd, 3rd, and 5th giving us 20 points to Tommy's 19½.

Taking both races, Bart's won with 38 against St. Thomas's 37½.

The victorious team were Miss V. Dent, Miss A. Yendell, G. Doggett, M. Freeth (capt.), D. Garrod, R. Markham.

Cedric Clarke served well as officer of the day, and put in several words of advice during the several arguments that arose during a most entertaining and rewarding afternoon's sailing.

M.F.

THE SWIMMING CLUB

On October 8th The United London Hospitals Polo season started. Unfortunately Bart's has not done too well so far, but it is hoped that this will soon change, particularly now that we have started having Thursday evening training sessions in the gym. There are two teams in this polo league and the second team is the ideal place in which to learn to play water

MOTOR CLUB

The club has had ten meetings over the past year. Six of these have been film shows at Charterhouse. The films ranged from technical subjects to motor racing with special emphasis on pre-war racing. B.P. generously invited a small number to a cocktail party at which several future projects were discussed.

GOLF CLUB

After a long spell without a match due to the annoying habit of our opponents cancelling games at the last minute either because of an inability to raise a team or just bad organisation, we have at last managed to play another match since early August. Also by now we should have played the Hospitals Cup Final but it seems we will be lucky to play it before the early rounds of next years competition have been started, as Guy's and the London have yet to play their second round match.

Members of the Bart's team fared well in the **London University Trials** held at Sandy Lodge on October 13th. On a day in which the

THE RIFLE CLUB

Mr. Jackson Burrows has retired as President, after many years of happy association with the club: we thank him for his kindness and interest over the years. Mr. G. L. Bourne has been elected President, and we hope his time as President will be as enjoyable as that of Mr. Jackson Burrows.

This year we have had some 40 new members joining the Club on the small-bore range, and their performances seem to indicate that we have a good season ahead of us. Indeed, we have been able to enter a record number of teams in the University Competitions: 7 rifle teams, and 2 pistol. With the end of last season the club lost several of its best shots, who qualified and left the Hospital, apparently believing that medicine is more important than shooting for the club. It is hoped, however,

polo. So please, if you would like a game—let me know.

On November 17th London University held the annual swimming and Diving Gala for which Bart's entered a team. Details of this will appear in the next issue of the journal.

I.S.B.

We have had three outdoor meetings at the Ealing skid-pan where all participants enjoyed themselves as well as learning a lot from the curious antics which we performed.

The club intends to continue with more practical activities and it is hoped that members will take part in U.L.U.H.M.C. rallies.

I.M.

scoring was only moderate Alan Hamilton won the nett prize with a nett score of 67 and Richard Begent with a nett score of 70 gained the second prize. M. Bowen, despite an 8 on his card finished with the 3rd best gross score of 79.

We had an encouraging and convincing win against **Imperial College** 6-2 on Wednesday, October 27th. The top 6 matches were all won and we only lost the last two singles. John Reed unbelievably lost 8 holes on the trot after being 6 up with 9 to play!

M.M.B.

that their loss will be made up in a short time from our new intake, and it is pleasing to see that many of the freshers are already scoring in the 90's.

With this large intake into the club, we can look forward to many new people taking advantage of our full-bore equipment in the summer.

Inter-Hospital trophies have been awarded to Miss S. Lee, T. Dutt, M. Hambly, M. Holbrook, and P. D. Fairclough.

The Cups were awarded as follows:

The Lady Ludlow Cup: for the highest average: P. F. Tatham.

The Mrs. H. J. Waring Cup: for the best increase in average: M. Holbrook.

The H. J. Waring Cup: for the highest full-bore average: J. M. Turner.

S.G.C.

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HOCKEY CLUB

It is difficult to comment on individual players since none are too outstanding, but no one could fail to feel the improvement of the team throughout the tour. The backs settled with less confusion playing a retreating defence; the forwards more confident with fewer speculative and more short, straight passes.

Because of some concurrent examinations the team varied too much for serious practice as a cup side. But I am grateful to P. L. Thompson who made up the eleven on the Saturday when several players were not too fit. I must also thank N. Houghton and G. Benke for trying their hands amongst the forwards and full-backs respectively. There are always so many half-backs!

The Glengarry Hotel catered well for our varied tastes and habits, and I trust they will have us again next year.

On tour: P. Jordan, A. Barclay, G. Benke, P. Dieppe, R. Winter, P. Currie, M. Woolnough, N. Houghton, W. Goss, W. Castleden, J. Harrison, I. Peek, J. Thompson, A. Gordon.

J.B.T.

Cambridge Tour 1965

To win four of the five matches was a lift the club needed after a rather sad start to the season. The fifth result was the annual draw against Jesus College.

On the Wednesday, King's, who knew nothing about the fixture, condescended to play a short game best forgotten but for the score (W. 2-0). After a loud night the eleven played so much better against Jesus (D. 2-2) who are always most hospitable. This year they were able to entertain us after hours in their new college bar. A slight difference with one of the night-watchmen was soothed in the Pembroke pond and soon forgotten in the Friday morning mist. We played in spite of the poor visibility and plopped in the essential one against Fitz-William House (W. 1-0). A little tired, and after a heavy lunch at Selwyn, we defeated our hosts by one goal.

Most of us were glad when the last game came to an end in the fog on the Pembroke ground, where careless play left two cut eyes, and the only spark in the play was an inspired reverse stick goal from A. Gordon which pushed the score to a 3-1 win.

SQUASH CLUB

With the whole of last year's team still on call, including the redoubtable John Mitchell—former University of London Captain—the Club is looking forward to a successful season under the captaincy of Tony Edelsten. Once more we are fortunate enough to have Professor Shooter as President of the Club. Pre-season trials revealed the arrival of the polished Tonbridge freshman, John Ussher, who promises to embarrass the team selection when Downham and Edwards return from midder at Redhill.

In the first match of the season on 7th October, the Secretary, though unable to contribute due to injury, had the pleasure of watching the Club's convincing 5-0 caning of a weakened **Old Paulines** team. Mitchell, Latham and Duff made an impressive first three strings, and nobody dropped a game. It was a much closer thing against **Roehampton** on their courts on 14th October, but David Latham's superb fitness once again helped us to victory, by 3 games to 2.

The Cumberland Cup season opened with a home match against **West London**—newcomers to the tournament—on 19th October. Mitchell won comfortably and Ussher, in his first match for the Club, played confident squash to win at no. 3. Edelsten lost gallantly in the fifth game and McCaldin's opponent also proved too wily, so the issue devolved upon

RUGBY FOOTBALL CLUB

Bart's played **R.M.A. Sandhurst** on October 2nd in a match in which our only score was a penalty kicked by Pope. Sandhurst crossed our line twice to win 6-3.

The start of the game against **Old Blues** on October 9th was encouraging. Goodall followed a forward rush to touch down after only a few minutes play. The rest of the match however did not continue in the same vein. Two defence lapses in the second half allowed Old Blues to score two converted tries and Bart's finally lost 3-13.

On 13th October we travelled to Cambridge to play the **C.U. LX Club**. The Bart's pack showed much more determination than in previous matches especially in their loose play, one instance of which led to McKintyre scoring an unconverted try. Savage kicked a penalty to give us our other points. Good running by the Cambridge backs put them ahead to win 16-6, after which the University Town greeted us with their usual hospitality.

It was not without some rejoicing that Bart's

Williamson at no. 4. Unfortunately he was convincingly outscored by an opponent twice his age and the match was lost 2-3. Although we were deprived of Brian Duff for the evening, it is an uncomfortable thought that this is the sort of match that Bart's must win to avoid the nethermost regions of the Division.

Things went a little better in the second Cumberland Cup match against the **Honourable Artillery Company** (away) on 26th October. At no. 1 Mitchell, though perhaps a little unfit, was far too good for Connell, the amateur rackets player; in the bottom rubber McCaldin, again kindly deputising for Brian Duff, wore himself out with scant reward. Williamson, after an anaemic start, was lucky to save match point and scrape home at no. 4. Ussher saved several match points at no. 3 but eventually lost one after an exciting struggle to level the match at 2-2. In the decider Edelsten produced his finest squash of the season to date to white-wash his opponent and clinch a 3-2 Bart's victory.

The Club has played two 'A' team fixtures, against an incomplete **Selwyn College, Cambridge** on 21st October, and against **Guy's Hospital** on the 28th; although Latham lost at no. 1 in the latter, and the freshman Molyneux at no. 5, Edelsten, Chesney and McCaldin carried us to overall victory.

R.C.N.W.

won its first match against **Woodford** on 16th October 11-3. Griffiths dropped an early goal, McKintyre ran elusively for a try in the corner and Jackson touched down near the dead ball line. For the first time the backs ran decisively and should have scored more points but for final passes going astray.

Having lost by a large margin last season to **Esher** the side was keen to put matters straight on October 2nd, a feeling which spurred us to give a sustained effort throughout the match. The pack played coherently both in the tight and the loose with some good jumping by Batten in the line-out. Esher time wasting gave Savage an opportunity to kick a penalty from the 25. Esher equalized with a try and gained the lead from a penalty. A good try by Savage kicking ahead after an Esher handling mistake gave us hope of a victory but a charged down kick enabled Esher to win eventually 14-9 in a match which might well have gone the other way.

S.M.J.

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SOCCER CLUB

The club played two friendly games this season before starting the league programme. Unfortunately both these games were lost 2-3 to City of London College and 4-7 to the G.P.O.

However the team gained experience from these two games and has since been strengthened by several players who joined us in October. **Saturday, October 10th v. Northern Polytechnic U.L.** Lost 2-3.

Bart's started strongly and were soon in the lead, Mumford scoring with a strong shot from the edge of the penalty area. After this the team appeared to be lacking a sense of urgency and, by the middle of the second half, we were losing 1-3. Sutton pulled back one goal when he scored from a Dorrett centre but Bart's were unable to get the equaliser.

Team: Sills, Turner, McGeachie, Farrow, Raine, Mumford, Dorrett, Thew, Sutton, Evans, Hugh.

Wednesday, October 20th v. R.D.H. U.H.L. Lost 1-3.

Within a minute of the start Bart's were a goal down. Perhaps unsettled by this, our play was flustered and hurried until the interval

when the score was still 0-1. After the restart the Dentists went further ahead. Sutton then scored for Bart's following a goalmouth scramble and for the next quarter of an hour, play was almost entirely in our opponents half. Bart's were several times near to scoring and Dorrett was particularly unlucky when his shot hit a post.

R.D.H. then scored a breakaway goal shortly before time.

Team: Sills, Turner, McGeachie, Farrow, Raine, Mumford; Jeffries, Thew, Sutton, Bowen-Roberts, Dorrett.

Saturday, October 23rd v. Swiss Mercantile Won 14-0.

In spite of the convincing margin of the score, this was not a very satisfactory way in which to obtain the first win of the season. The opposition could only muster nine players and they offered little resistance. In the circumstances the Bart's attack had a field day. Goal scorers were Jeffries (5), Thew (5), Offen (2), Farrow (1), Sutton (1).

Team: Riddle; Turner, McGeachie; Farrow, Raine, Mumford; Jeffries, Offen, Sutton, Thew, Dorrett.

Wednesday, October 27th v. Middlesex Hospital U.I.L. Won 4-1.

This was a far better game. For the first time the whole team played well together. Goals by Sutton and Dorrett gave Bart's a 2-0 half-time lead. After the restart, Middlesex

pulled back a goal but then Bart's reasserted their superiority and, with two more goals from Offen and Sutton won comfortably.

Team: Sills, Turner, McGeachie, Farrow, Laine, Mumford; Jeffries, Offen, Sutton, Thew, Dorrett.

C.M.S.

CROSS COUNTRY CLUB**Saturday, 16th Oct. UC Relay at Parliament Hill Fields**

Several Bart's runners had been picked to represent United Hospitals against Thames Hare and Hounds and so the team we sent to Parliament Hill Fields was by no means a strong one. Our final positions of 19th out of 24 teams betrayed this fact but some individual performances were of a high standard. Robert Hale particularly deserves mention after completing the 1.6 miles course in 8 min. 49 secs.

Saturday, 23rd Oct. London University Trials and London Colleges Cross Country League

This was a 6 mile course run over Parliament Hill Fields. The firm ground and ideal running conditions made this a fast race. Results: 28th E. Graham, 34m. 10s.; 47th R. Sanders, 35m. 22s.; 60th G. Hesselton, 36m. 22s.; 76th J. Collart, 36m. 57s.; 83rd P. Wood, 37m. 12s.; 104th C. Hunt, 38m. 18s.

168 runners finished the race which was won in 30.18. We finished 9th overall—having lost a place in the League to Guy's Hospital. We would undoubtedly have done better if Robert Thompson had not had to drop out with a badly sprained ankle. It is hoped that this will not cause any prolonged absence from the team. Edward Graham, a "fresher", ran an excellent race and is to be congratulated with Graham Hesselton in being selected by the University to run in one of their teams against Cambridge. Christopher Hunt is one of a number of new runners in the side who show great promise provided they can improve their present standard of fitness.

Saturday, 4th September. Ben Nevis Race.

The very thought of this event so early in the season unfortunately deterred many so that only two members, Thompson and Sanders, flew northwards. On arrival a camp site was set up in Glen Nevis and a preliminary walk up the mountain produced such stiff muscles that the pubs of Fort William had to be visited for revivment. The course is fourteen miles long, starting and finishing in Fort William. After running along the road for three miles at high speed the ascent begins and the pace

is much slowed. Clouds were encountered at 3,000 ft., only to disappear at 4,000 ft., leaving a final climb of 420 ft. in bright sunshine. The mountain had risen 12 ft. since last year which together with the high altitude and lack of acclimatisation brought on a sensation of weakness at the knees. On the ascent it was found best to take the longest route with the smallest gradient but on the descent it was a matter of falling, jumping, and stumbling down by the shortest route, our two entrants finishing about the middle of a field of 200. No one died this year and surprisingly few gave up. This event provides an excellent holiday in Scotland as well as giving its competitors the satisfaction of having completed the "Toughest Race in the World." Next year it is hoped that more will enter so that we can finish as a team.

Sunday, October 3. Orienteering Race at Mickleham.

This event was set in very hilly country around Box Hill and needed some skill in map reading which we seemed to lack for two members got lost and two more delayed by mistaking a hill for a valley on the map. It was a superb day and a very enjoyable event. Sanders and Collart were 9th—of 100 finishers in 91 minutes. Dr. R. Bannister was the only other hospital competitor to finish the course. The fact that the winner took 71 minutes for the 5 miles and last man took 279 minutes demonstrates that one does not have to be a fast runner to compete successfully in these events at which we hope to see more people competing in future.

Sunday, October 17. Orienteering Race at Abinger Hammer.

The course was a very difficult 7 miles being set in thick woods and often downland with very obscure control points. This meant that luck and skill with the map and compass were just as important as speed with the result that Sanders (3rd) and Thompson (9th) beat Tulloh, Pirie, Hyman, Salvat, *et. al.* Heiselden and Graham were unfortunately forced to retire but no doubt they will rectify this in the future. P.B.W. and R.S.

ST. BARTHOLOMEW'S HOSPITAL JOURNAL

CLINICAL AND RESEARCH SUPPLEMENT

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MYELOMATOSIS

By J. E. Royds

Consultant Physician, Ashford Hospital, Middlesex.

Introduction

Myelomatosis is a disease in which abnormal proliferation of plasma cells occurs in the bone marrow. These plasma cells are associated with abnormal plasma globulins.

Bence Jones started the study of the disease with the description in 1848 of a man with fragile bones in whose urine an unusual protein substance was found. It was not, however, until 1889 that Kahler really associated the syndrome, which we now know as Multiple Myeloma, with Bence Jones proteinuria.

The disease was considered rare and, indeed, in 1928 Geshickter and Copeland reviewed 425 cases reported before that year, and added 13 cases of their own. Since that time excellent general reviews of the condition have been made (Atkinson, 1937; Bayrd & Heck, 1947; Lichtenstein & Jaffe, 1947; Adams, Alling & Lawrence, 1949; Snapper, Turner & Moscovitz, 1953; Brownell, 1955; Dancaster, Hussein & Jackson, 1959). With the improvement of diagnostic methods such as bone marrow biopsy and electrophoresis of the plasma proteins, the

disease has become more frequently diagnosed. The apparent increase in incidence is also probably related to the increasing age of the population, as the disease tends to occur mainly in persons over 50.

This paper is based on 26 patients seen by me at Ashford Hospital, Middlesex in the 10 years up to April, 1964. Their ages varied between 41 and 85, 3 being under 50 and 6 over 70. This agrees with other descriptions of the disease where the great majority of cases have been between the ages of 50 and 70 years. There were 14 females and 12 males, an unusual sex incidence, as the disease has a preponderance in males in a ratio of about 3:2.

In one patient there was a history of myelomatosis in a brother, an unusual finding.

Clinical Manifestations.

The mode of presentation is of some interest as it determined the department of the hospital to which patients were referred. The predominant presenting symptoms are as shown in Fig. 1.

Presenting Symptom	No.
Backache and other bone pain	13
Chest infection	7
Lassitude and anaemia	3
Vomiting	1
Epistaxis	1
Oedema	1

Fig. 1.

From this it may be seen that half the patients presented to the orthopaedic surgeons, and the remainder to the physicians.

Bone pain.

Bone pain was much the commonest symptom, occurring at some time in 20 patients. The bone pain was persistent, though in many patients not very severe, until a compression fracture of a vertebra or a rib or long bone fracture produced much more acute pain. Collapse of one or more vertebrae was the commonest type of fracture, and was often associated with the severe neuritic pain of spinal root compression. In one patient with gross thinning of the bones, recurring fractures of the clavicles, ribs, several vertebrae, humeri, and the left femur were a source of severe pain from the onset of the illness to her death one year later.

The healing of fractures was quite rapid in most cases, as has been described before (Snapper *et al.*, 1953).

Chest Infection.

Chest infection, excluding terminal bronchopneumonia, occurred in 5 patients. In 3 of these, pneumonia with initial hæmoptysis recurred on several occasions. This tendency to respiratory infections has been noted before and three of these patients have been previously described (Baldry & Royds, 1961). Four patients who had recurrent pneumonia had high serum globulin figures. High blood viscosity has been described with high serum globulin levels (Albers, 1937; Magnus-Levy, 1933; Waldenström, 1952) and it may be that small pulmonary infarctions occur due to pulmonary arterial thrombosis. These, associated with low antibody levels and with chest cage deformity and pain, probably account for the high incidence of pulmonary infections in the disease.

Terminal bronchopneumonia is common in myelomatosis, and two patients were first diagnosed when admitted with this condition. In these patients the symptoms of the myelomatosis had been present for less than three months.

Neurological symptoms.

Neurological symptoms in myelomatosis can be of two origins—one due to involvement of nerves by myelomatous tissue or by compression due to fractures, and the other in which no direct involvement of the nerves or nerve roots can be found. The former leads to such conditions as spinal nerve root compression or to paraplegia, and the latter to polyneuritis (Clarke, 1956) and isolated cranial nerve palsies or even non-specific degenerative disease of the spinal cord. In this series, pain due to spinal nerve root compression occurred in 7 patients. One patient had a paraplegia following a collapse of the eleventh thoracic vertebra which was treated with radiotherapy; no post mortem was held on this patient and the exact cause of the paraplegia is not known.

One patient had a left abducent nerve palsy which at autopsy was not thought to be due to involvement in myelomatous tissue.

Three patients developed herpes zoster during the course of the illness. Herpes zoster has been noted in other reports (Snapper *et al.*, 1953).

One patient died following a cerebral thrombosis and at autopsy was found to have a left occipital lobe infarction.

Renal involvement.

Albuminuria is common in myelomatosis and was found in 20 of the 26 patients as evidence of renal involvement.

Bence Jones proteinuria occurred at some time in 10 patients. In some patients the urine was examined on several occasions and Bence Jones protein was found to occur sporadically. This may account for the great difference in incidence of this condition in various series—from 16% (Brownell, 1955) to 61% (Geschickter & Copeland, 1928). It shows also that, as a screening test, a single urine examination for Bence Jones proteinuria is of little value.

Bence Jones protein is precipitated by heating urine to temperatures between 40°C and 60°C. At higher temperatures it redissolves, only to reappear as the urine cools. It probably is a product of the abnormal myeloma cells, and by immunological and electrophoretic methods it has been demonstrated in serum. It is found in the urine most commonly in patients without hyperglobulinæmia, although exceptions occur.

Urea retention occurred in 10 of the 26 patients and 7 died of chronic renal failure. These 7 had shown marked Bence Jones proteinuria during life and, as occurs in myelo-

matosis, renal failure was not accompanied by hypertension. No patient developed acute oliguric renal failure as described by Healy (1963).

The cause of the renal failure in myelomatosis is thought to be widespread blockage of the tubules, often in their entire length, by casts of Bence Jones protein. Other factors in causation of renal failure are the development of high calcium which is common in myelomatosis and which damages glomerular function, and the high level of plasma uric acid, due to destruction of the nuclei of the myeloma cells, which produces changes in the kidney resembling those of gout (Milne, 1962). Proximal tubular damage, probably due to absorption of abnormal globulins, has only occasionally been proved as a cause of renal impairment.

Blood.

Anaemia occurred in some degree in 25 of the 26 patients. Usually the anaemia became progressively worse during the course of the illness. On first examination the hæmoglobin was below 75% in 10 and below 50% in a further 9 patients.

A leuco-erythroblastic picture was found in 7 patients and in 2 others plasma cells appeared in the peripheral blood.

Rouleaux formation was common in the blood films and was associated with high serum globulin levels, and frequently with a bluish tint in the stained blood smear.

The erythrocyte sedimentation rate was above 20 mm./hr. in 24 of the 26 patients, and was above 50 mm./hr. in 19.

Thrombocytopenia was present in 2 patients. A tendency to bleed was found in 4 patients who had epistaxis, mild hæmoptysis not associated with pneumonia, or hæmaturia.

Bone marrow.

Bone marrow biopsy was carried out in all 26 patients and was the main aid to diagnosis.

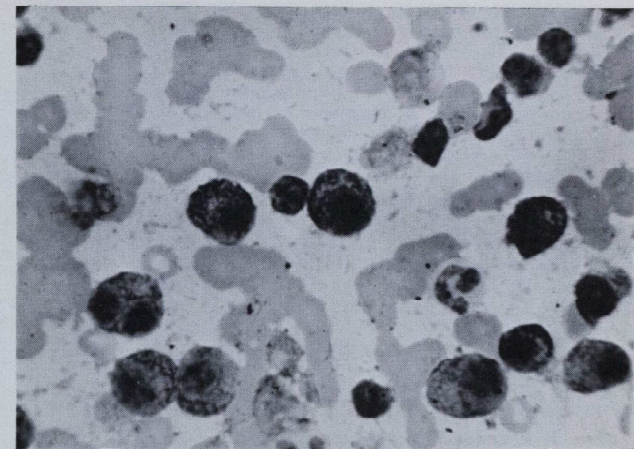


Plate 1.—Microphotograph (×800) showing myeloma cells with vacuolated cytoplasm and, in one cell, a mitotic nucleus.

The myeloma cells are of plasma cell type and vary in their maturity from the small mature, dark blue, almost characteristic of the plasma cell, to the large, immature, anaplastic cells. The nuclei are eccentric in position in the cells, and the chromatin in the more mature forms is often present in sausage-like clumps. Younger forms with a more vesicular nucleus with the chromatin evenly distributed in a fine network are frequent. The nuclei may show one or more nucleoli. Incomplete mitoses appear to be much more frequent in the myeloma cells than in the plasma cells of normal bone marrow.

In each patient the degree of maturity tended to be uniform, though there was some pleomorphism.

Where more than one bone marrow biopsy was done in a patient, the proportion of myeloma cells in the marrow varied considerably. In one patient, for example, sternal marrow biopsy showed only 10% of the total to be myeloma cells, whereas a biopsy from the site of a pathological fracture of the femur consisted entirely of such cells.

Plasma Proteins.

Estimation of the plasma proteins with electrophoresis was carried out in all 26 cases.

Hyperglobulinæmia, i.e. serum globulin above 3.0 g./100 ml., was present in 20 patients. In 18 patients the plasma albumin

was less than 4.0 g./100 ml., and in 12 of those patients it was less than 3.0 g./100 ml.

Electrophoresis in myelomatosis shows four variants of pattern. The peak may be in the gamma globulin, between the beta and gamma positions—the so called M band—in the beta position, or there may be no increase at all. Fig. 2 shows the patterns of the 26 patients.

Position of the peak	No.
Gamma	16
M	3
Beta	5
Normal pattern	2

Fig. 2.

The globulins in excess in the plasma are mainly abnormal and have a low antibody content. It is now widely accepted that antibody formation is a function of lymphocytes and plasma cells. Fagraeus (1948) demonstrated in rabbits that sensitisation to horse serum produced hyperglobulinæmia with increase in antibodies and concomitant proliferation and maturation of plasma cells. Again, in children with agammaglobulinæmia it has been shown that the deficiency of antibodies is not due to excessive breakdown of protein but rather to impaired production of gamma globulins (Good & Zak, 1956). This defect of production is associated with a remarkable absence of plasma cells. In myelomatosis the plasma cells are morphologically abnormal and it is believed that these atypical plasma cells elaborate abnormal serum proteins (Magnus-Levy, 1933, 1938).

Marks, in 1953, compared the formation of antibodies in myelomatosis with that found in other diseases with hyperglobulinæmia and in normal controls. He found that in diseases with excess of qualitatively normal globulin, in which stimulation of normal plasma cells occurred, formation of antibodies was normal. In myelomatosis, however, antibody formation was depressed despite the hyperglobulinæmia. Other studies have been made by Lawson *et al.* (1955) who had noticed recurrent respiratory infections in patients with myelomatosis. They confirmed that deficient antibody production is a characteristic feature of myelomatosis, as have other workers—Dancaster *et al.* (1959); Linton *et al.* (1963).

It seems likely that in myelomatosis the susceptibility to recurrent infections is depend-

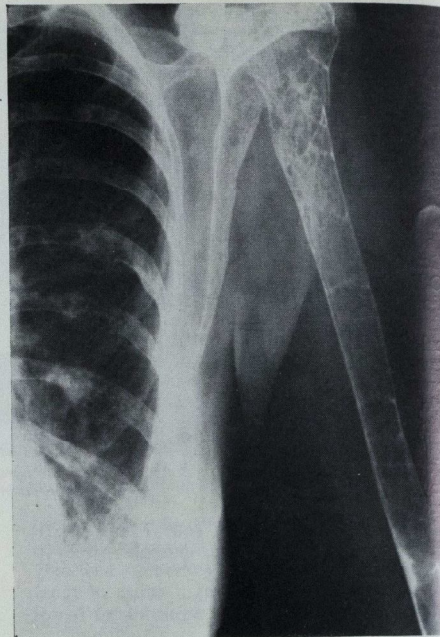


Plate 2.—Osteolytic areas due to myelomatosis in humerus, scapula and ribs, together with a fracture of the upper end of the humerus and fractures of three ribs.

ent on the dysglobulinæmia due to the plasma cell abnormality.

Serum calcium.

The serum calcium was not measured in all cases, but was elevated above 12.0 mg./100 ml. in 6 of 14 patients.

Hypercalcaemia is a feature of the bone demineralisation of myelomatosis and has been found in about 50 to 60% of patients with the disease in various reports. The hypercalcaemia may be a contributory factor in the renal failure, which is not uncommon in myelomatosis, by producing impairment of glomerular filtration.

Alkaline phosphatase.

The level of alkaline phosphatase was estimated in 14 patients and was elevated in one, being 17.5 K.A. units/100 ml. Characteristically in myelomatosis the alkaline phos-

phatase is not raised despite the bone destruction. A rise may, however, occur due to infiltration of the liver with myeloma cells, and this is thought to have been the cause in the above patient.

Radiological Changes.

The characteristic X-ray finding in myelomatosis is of numerous punched out areas in bones due to osteolysis by the proliferating plasmacytes (see Plates 2 and 3). Such punched out lesions of course are not seen only in myelomatosis but may occur in carcinomatous metastases, reticulum cell sarcoma, metastasising thyroid adenoma, etc.

In myelomatosis the margins of osteolytic lesions are usually sharply cut and new bone formation and periosteal reaction are rarely seen.

In this series, 17 patients had osteolytic bone changes radiologically when first seen. Another 2 showed marked osteoporosis, which is the only radiological finding in some cases of myelomatosis. In 5 further patients who first presented with pneumonia, the skeleton X-rays appeared normal when the myelomatosis was first diagnosed. Osteolytic areas appeared in all 5 patients within three months of the diagnosis. Two patients who had terminal bronchopneumonia on admission had normal bone X-rays.

The frequency of radiological involvement of the various parts of the skeleton is shown in Fig. 3.

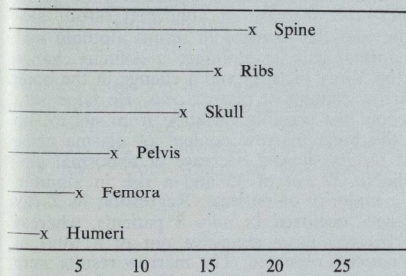


Fig. 3 No. of patients

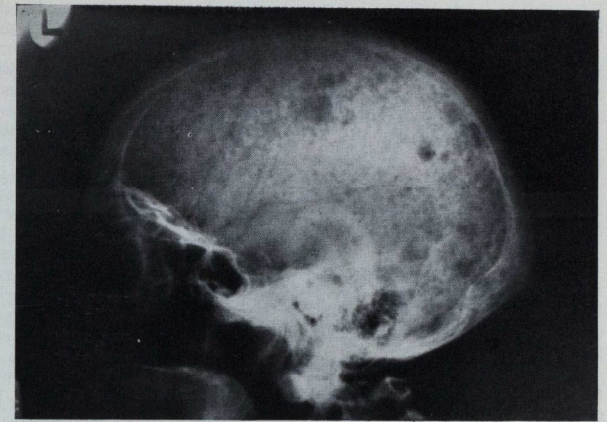


Plate 3.—Myelomatous osteolytic areas in the skull.

Pathological fractures are common and occurred in 15 of the 26, if compressive fractures of the vertebrae are included.

Amyloidosis.

In myelomatosis amyloid deposition occurs not infrequently. It has been suggested that the amyloid may be a product of the myeloma cells, as are the other abnormal proteins (Magnus-Levy, 1938). The amyloid is unlike the secondary amyloid occurring in suppurative disease, tuberculosis, etc., which is localised in the spleen, liver, kidneys, adrenals and blood vessel walls. In myelomatosis the amyloid is deposited mainly in the mesenchymal tissues of the heart, blood vessels, peripheral nerves, muscles, skin and gastrointestinal tract. This amyloidosis resembles more the condition of primary amyloidosis in distribution. The amyloid, may, however, involve the kidney, which occurred in 1 patient who had a nephrotic syndrome and who died of renal failure. Two other patients were found at autopsy to have amyloid involving the heart muscle, blood vessels and muscle of the gastrointestinal tract.

Joint symptoms resembling rheumatoid arthritis have been found in myelomatosis. Hamilton and Bywaters (1961) stated that 24 patients had been described in the literature and added 3 patients with the condition and 2 with myeloma-like protein in the blood, but no other evidence of myelomatosis. These patients characteristically have amyloid in the affected

joint tissues or in the nodules in relation to the joints.

One of the above 3 patients with amyloidosis had polyarthritis for about one year before the diagnosis of myelomatosis was made. No joint tissue was examined for amyloid at autopsy.

Prognosis.

It was possible to follow up all but one of the 26 patients. Three are still alive, two having been observed for 18 months and the other for 3 months.

The other 22 patients died on an average 17 months after the onset of symptoms. The longest duration of life from the onset of symptoms was 3 years and the shortest 4 months.

It was notable that older patients tended to accept the pains of myelomatosis until the onset of bronchopneumonia, symptoms of renal failure or a fracture, necessitated medical attention. Following diagnosis, these elderly patients had only a very short duration of life—3 months on average.

It was also noted that patients who presented with pneumonia, other than terminal bronchopneumonia, had only a short history of symptoms which could be attributed to myelomatosis. These patients were among those who lived the longest following the onset of symptoms.

A study of the duration of survival in 238 patients diagnosed as having myelomatosis between 1943 and 1952 has been made by Feinleib & MacMahon (1960). The average survival of these patients was three and a half months but 16% survived for 18 months and 8% for more than three years. They noted a distinct tendency, more marked in females than in males, for the median duration of survival to decrease as age increases.

The duration of survival is very variable; though the average is probably about 2 years following diagnosis. Survival for as much as 11 years or more has been reported.

Treatment.

The treatment of myelomatosis is difficult to assess as the variability of prognosis seems to be so great. In the present series various treatments were used. Radiotherapy was given to all patients with pain due to localised lesions of the spine. For the relief of pain it was very successful but it did not appear to alter the progress of the bone lesions. Collapse of affected vertebrae continued following the

treatment. In these patients spinal supports were used to minimise the deformity due to collapse of a number of vertebrae.

Blood transfusion was used where indicated to treat anaemia. One patient has survived for 18 months since diagnosis, having blood transfusions every six weeks or so for his leuco-erythroblastic anaemia.

Stilbamidine, introduced by Snapper in 1948, was used on 4 patients. It did not appear to produce any benefit and, in view of the reported serious toxic effects of renal damage and trigeminal neuropathy, was not used again.

As the disease is due to proliferation of plasma cells various cytotoxic drugs have been used in treatment. In 11 patients urethane was given and was effective in relieving bone pain, but, apart from an improvement in anaemia in 2 patients, no other beneficial effect was noted. In 3 patients leucopenia occurred and the urethane had to be stopped.

Urethane has been used alone, or in combination with nitrogen mustard, since its introduction in 1947 by Alwall, Innes & Rider (1955) reported the use of a combination of urethane with an oral nitrogen mustard with good relief of bone pain and other symptoms. The survival rate did not, however, appear to be altered by treatment.

Waldenström (1964) states that the general consensus seems to be that the number of patients who tolerate urethane well enough is too small to allow successful therapy on a large scale.

In recent years Melphalan (phenyl-alanine-nitrogen mustard) has been used. Reports by Waldenström (1964) and by Speed, Galton & Swain (1964) describe its use in a total of 90 patients. The nitrogen mustard is the effective part and the phenyl-alanine acts as a carrier. It probably works by interfering with the synthesis of proteins.

Waldenström (1964) uses as criteria of its effect—the decrease in abnormal serum globulin and the increase in serum albumin and in normal gamma globulin; a definite change in the X-ray picture; and a change in the bone marrow content of plasma cells. He takes into account the possible variation from site to site in the bone marrow content of plasma cells. His results showed decrease of abnormal globulin in 27 out of 35 and a rise in albumin in a majority of patients. Regression in X-ray changes occurred in only 8 patients, whereas 11 became more extensive out of a total of 53 patients observed. The marrow results were not reported in this paper. He concluded that

Melphalan is better than urethane, and that it should be used continuously except when signs of overdosage appear.

Speed, Galton & Swan (1964) describing the use of Melphalan in 20 patients, noted relief of pain in 11 out of 15 patients, rise of haemoglobin in 8 patients and a significant decrease in erythrocyte sedimentation rate, serum globulin level, serum calcium level and proteinuria in 4 patients. They consider some form of intermittent therapy should be used if the drug proves to be beneficial.

I have used Melphalan in treatment of 3 of the 26 patients. It had to be discontinued because of increased anaemia and neutropenia in one patient with leuco-erythroblastic anaemia. One patient had remarkable relief of bone pain, but the drug has been discontinued during radiotherapy to the spine. The third patient has responded well—F.S.B., male, aet 41 presented in May, 1963 with a history of being unwell for 4-5 months, with recurrent colds and influenza, and epistaxis. A week before admission he felt a crack in his ribs on getting out of a car, and during that week he had had vomiting, headache and repeated epistaxis. Investigations showed haemoglobin 6 g./100 ml., E.S.R. 70 mm./1 hr., W.B.C. 3,600/c.mm. (Polymorphs 64%, lymphocytes 36%). Platelets 200,000/c.mm. Bone marrow showed 81% plasma cells. Serum proteins, 10.6 g./100 ml. (albumin 2.3 g., globulin 8.3 g.). B. J. proteinuria present. Electrophoresis, β globulin peak. Blood urea was 176 mg./100 ml., Serum calcium 10.0 mg./100 ml., X-rays showed multiple translucencies in skull but not in ribs or pelvis. Treatment and progress: Melphalan 5 mg. daily for one week followed by 4 mg. daily for 4 weeks; thereafter 2 mg. daily to present day. Blood urea fell progressively and on 18 July, 1963 after two months' treatment was 34 mg./100 ml. Haemoglobin rose progressively and at present is 12.2 g.%. Serum albumin rose to 4.5 g./100 ml. and serum globulin fell to 2.4 g./100 ml. in September 1963, and electrophoresis showed marked reduction of β globulin peak. X-rays show little if any progression. The patient feels very well, is free of bone pain and has no epistaxis. He is, however, concerned that his hay fever, from which he was free in the

summers of 1962 and 1963, has returned this summer.

Summary

Twenty-six patients with myelomatosis are reviewed and the features of their illness discussed. Recurrent respiratory infection has been noted to be relatively common in this condition.

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REFERENCES

- ADAMS, W. S., ALLING, E. L. AND LAWRENCE, J. S. (1949), *Amer. J. Med.*, **6**, 141.
 ALBERS, D. (1937), *Z. klin. Med.*, **132**, 807.
 ALWALL, N. (1947), *Lancet*, **2**, 388.
 ATKINSON, F. R. B. (1937), *Med. Press*, **195**, 327.
 BALDRY, P. E. AND ROYDS, J. E. (1961), *Thorax*, **16**, 291.
 BAYRD, E. D. AND HECK, F. J. (1947), *J. Amer. Med. Ass.*, **133**, 147.
 BROWNELL, E. G. (1955), *A. M. A. Arch. Int. Med.*, **95**, 699.
 CLARK, E. (1956), *Neurology*, **6**, 146.
 DANCASTER, C. P., HUSSAIN, O. A. N. AND JACKSON, W. P. U. (1959), *Postgrad. Med. J.*, **35**, 662.
 FAGRAEUS, A. (1948), *Acta. med. Scand.*, **130**, Suppl. 204.
 FEINLEIB, M. AND MACMAHON, B. (1960), *J. Nat. Cancer Inst.*, **24**, 1259.
 GOOD, R. A. AND ZAK, S. J. (1956), *Pediatrics*, **18**, 109.
 GESCHICKTER, C. F. AND COPELAND, M. M. (1928), *Arch. Surg. (Chicago)*, **16**, 807.
 HAMILTON, E. B. D. AND BYWATERS, E. G. L. (1961), *Ann. of the Rheumat. Dis.*, **20**, 353.
 HEALY, J. K. (1963), *Brit. Med. J.*, **1**, 1126.
 INNES, J. AND RIDER, W. D. (1955), *Blood*, **10**, 252.
 LAWSON, H. A., STUART, C. A., PAULL, A. M., PHILLIPS, A. M. AND PHILLIPS, R. W. (1955), *New Engl. J. med.*, **252**, 13.
 LICHTENSTEIN, L. AND JAFFE, H. L. (1947), *Arch. Pathol. (Chicago)*, **44**, 207.
 LINTON, A. L., DUNNIGAN, M. G. AND THOMPSON, J. A. (1963), *Brit. Med. J.*, **2**, 86.
 MAGNUS-LEVY, A. (1933), *Z. klin. Med.*, **126**, 62.
 ——— (1938), *Acta med. scand.*, **95**, 217.
 MARKS, J. (1953), *J. Clin. Path.*, **8**, 62.
 MILNE, M. D. (1962), *Brit. Med. J.*, **1**, 175.
 SNAPPER, I., TURNER, L. B. AND MOSCOVITZ, H. L. (1953), *Multiple Myeloma, Grune and Stratton, New York*.
 SPEED, D. E., GALTON, D. A. G. AND SWAN, A. (1954), *Brit. Med. J.*, **1**, 1664.
 WALDENSTROM, J. (1952), *Advance. Int. Med.*, **5**, 398.
 ——— (1964), *Brit. Med. J.*, **1**, 859.

THE HORMONAL CONTROL OF FAT METABOLISM

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Senior Registrar to Dr. Cullinan

The important influence exerted by the endocrine system on fat metabolism is apparent from many observations seen in clinical practice. For example, an increase in the local deposition of subcutaneous fat follows treatment with adrenocortical steroids in patients with Cushing's syndrome and in myxoedema; whereas, wasting and a loss of depot fat is seen in Addison's disease and in patients with thyrotoxicosis. Obesity commonly accompanies the excessive secretion of insulin in patients with islet cell tumours and may also be seen in patients with disorders of the hypothalamus and pituitary. Furthermore, alterations in plasma lipids together with an obvious hyperlipaemia may occur in patients with diabetes and in myxoedema.

In experimental studies in animals, injections of crude extracts of the anterior pituitary or purified preparations of its component hormones such as growth hormone, adrenocorticotrophic hormone or thyroid stimulating hormone have all been shown to cause a rapid loss of fat from the storage depots and an increase in the total quantity of fat burnt in the body, so that the respiratory quotient falls and ketosis frequently develops. On the other hand, in hypophysectomised animals there is a reduction in the quantity of fat burnt for energy purposes and a relative sparing of fat in the depots. Similarly, if the nerve supply to an area of adipose tissue is interrupted, fat is lost from the area more slowly than from normally innervated tissue in other parts of the body. On the other hand, injections of the neurohormones adrenaline and noradrenaline lead to a well marked hyperlipaemia and an increased utilization of fat for energy purposes, whilst at the same time there is a rapid depletion of depot fat and a temporary accumulation of fat in the liver.

In the past, carbohydrate has been regarded as the major metabolic fuel of the body and attention has largely been focussed on alterations in the concentration of glucose in the blood and on the mechanisms for maintaining its level within normal limits. Whereas, fat has been regarded as a relatively inert substance, which is deposited in the fat depots at

times of dietary excess and only utilized infrequently in times of extreme need. Adipose tissue has in the past been regarded merely as a simple storage site for reserve energy. However, studies initiated by Schoenheimer, using isotopic tracers, have shown that storage fat, far from being inert, is in fact in a state of constant metabolic activity irrespective of the nutritional status of the animal. Storage fat is continuously being broken down and re-synthesised and its average half-life may be as little as 4-6 days. Moreover, adipose tissue can no longer be regarded merely as a passive acceptor of pre-formed fat for storage; it is an extremely specialised tissue having considerable metabolic activity. Indeed, adipose tissue is a major site for the synthesis of fat in the body, and in terms of total activity it rivals, if not exceeds, the liver in importance with respect to the metabolism of both carbohydrate and fat.

During recent years, it has also become increasingly recognised that the oxidation of fat supplies a considerable proportion of the total every-day energy requirements of the body. All tissues, with the exception of the nervous system, can utilize fat directly. Fat is supplied to the tissues in the form of free fatty acids (FFA), which are so called, so as to distinguish them from the storage form of fat in the depots, which is neutral fat or triglyceride (fatty acids esterified with glycerol). Free fatty acids (FFA) are present in the circulating blood in only very small amounts, their average concentration ranging from 300-700 micro-moles/litre. But their rate of production and utilization is extremely rapid, and studies with injected radioisotopically labelled fatty acids have shown their half-life to be normally as little as 2-3 minutes. FFA would seem to be the major form in which fat is supplied to the tissues for utilization for energy. The total daily efflux of FFA out of the circulating blood that are taken up by the body cells can account for as much as two-thirds of the total bodily energy consumption per day and amounts to 1,500-2,000 Calories. The site of origin of circulating FFA is almost entirely from the fat storage depots, very little being derived directly from ingested fat. Fat

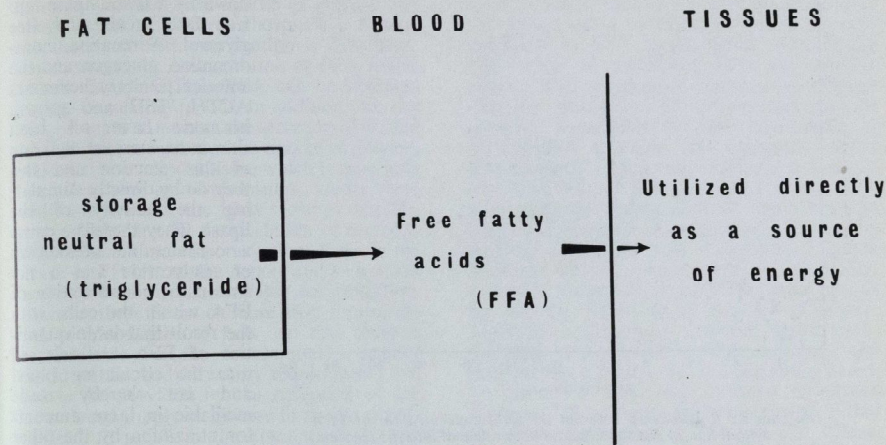


Diagram 1.

is stored in the depots as neutral fat or triglyceride, but is made available for utilization by the other tissues in the body by being liberated into the circulating blood in the form of free fatty acids (Diagram 1).

The concentration of FFA in the circulating blood varies considerably throughout the day, and there tends to be a reciprocal relationship between their level and the concentration of blood glucose. The amount of either in the blood at any one time will therefore determine to a large extent the proportion that either fat or carbohydrate will contribute to the total bodily energy production. Immediately after a meal the blood sugar rises whilst the concentration of FFA falls. However, the level of FFA starts to rise within 2-3 hours of a meal and reaches its highest value following a normal overnight fast by which time the blood sugar has fallen to its lowest level. But in addition to these nutritional effects on the concentration of circulating FFA, injections of insulin have been shown to cause their level to fall, whereas the administration of ACTH, TSH or growth hormone and adrenaline or noradrenaline all cause the level of FFA to rise.

Some controlling mechanism would seem to operate to vary the amount of FFA liberated from the storage depots in relation to the body's metabolic needs for the oxidation of fat. Studies in life using arterial and venous cannulation of fat rich areas and experimental studies.

with adipose tissue incubated *in vitro* have demonstrated how this control is achieved. The release of FFA from the depots is dependent on the metabolic activity of the adipose tissue itself and this is influenced directly by the action of various hormones.

Estimations of intra- and extra-cellular concentrations of FFA have shown that they can traverse cellular membranes with great ease and rapidly and the net movement of FFA into or out of adipose tissue cells seems to be governed largely by their concentration gradient across the membrane (Diagram 2).

Adipose tissue removed from recently fed animals contains only small quantities of FFA within the cells and little FFA is released from the cells during subsequent incubation, whereas tissue from fasted animals contains high concentrations of FFA and liberates large quantities of FFA. The addition of carbohydrate to the incubation medium decreases the concentration of FFA within the cells and also the quantity released from the tissue. The effect of any carbohydrate is dependent on the quantity added and is proportional to the ability of adipose tissue to utilize it. Moreover, impairment in the rate of utilization of sugar, as occurs in adipose tissue removed from diabetic animals, is accompanied by the accumulation of large quantities of FFA within the cells and a correspondingly large release into the medium. On the other hand, increasing

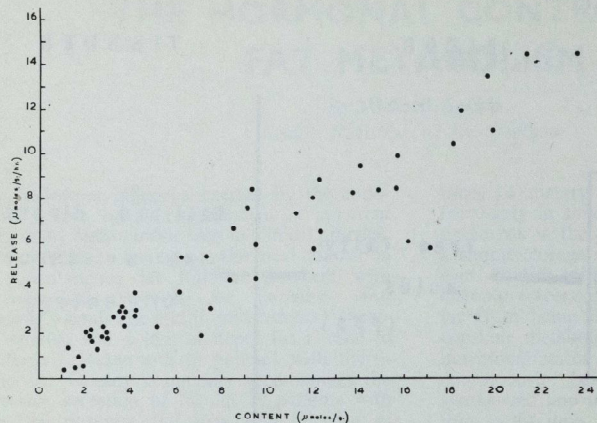


Diagram 2: Relationship between the final concentration of FFA within the fat pads and the quantity released into the medium.

the utilization of glucose by the addition of insulin decreases the release of FFA and reduces their concentration within the cells. The concentration of FFA within the adipose tissue cells and the quantity released, either into the medium *in vitro* or into the blood in life, is therefore inversely related to the availability of carbohydrate for utilization by the adipose tissue cells. But the rate of utilization of carbohydrate is not the sole factor controlling the release of FFA, for the uptake of glucose by adipose tissue is also increased by adrenaline or noradrenaline and the anterior pituitary hormones ACTH, TSH and growth hormone, yet all these hormones cause a marked increase in the concentration of FFA within the cells and a rapid outpouring of FFA into the medium.

Studies with radio-isotopic tracers have shown that there is a continuous building up of FFA within adipose tissue into storage triglyceride (esterification) and a simultaneous breakdown of triglyceride into FFA (lipolysis) and the concentration of FFA within the cells at any one time is determined by the sum of these opposing reactions (Diagram 3).

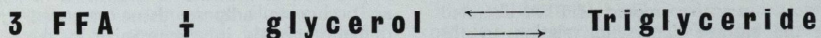


Diagram 3

Triglyceride is broken down by a tissue lipase into free fatty acids and free glycerol. Adrenaline, noradrenaline, glucagon and the anterior pituitary hormones ACTH, TSH and growth hormone have all been shown to increase the rate of this reaction and this they do by directly stimulating the activity of the lipase. They therefore cause a considerable breakdown of triglyceride and a net rise in the concentration of FFA within the cells, with the result that large quantities of FFA are released into the circulating blood and are thereby made available in large amounts for utilization by the other

tissues in the body. Adipose tissue lipase is but one example of several tissue enzymes known to be stimulated directly by these hormones.

The rate of esterification of FFA into storage triglyceride is increased in adipose tissue by the addition of glucose. The intra-cellular concentration of FFA falls so that there can be little escape of FFA from the cells. This effect of glucose is due to its ability to be converted into glycerol phosphate. The key to the importance of carbohydrate metabolism in the synthesis of triglyceride lies in the fact that FFA can only be esterified with glycerol phosphate, whereas free glycerol itself is inactive. Adipose tissue lacks the enzyme necessary to convert glycerol to glycerol phosphate, so that the glycerol produced during the continuous breakdown of triglyceride is of little if any use for the subsequent esterification of FFA. Consequently, adipose tissue requires a continuous supply of carbohydrate to provide a source of glycerol phosphate if esterification is to occur.

Immediately after a carbohydrate containing meal the blood sugar rises and increased quantities of glucose are available for utilization

by the tissues of the body. Adipose tissue shares in the increased uptake of glucose and a large excess of glycerol phosphate is formed with the result that esterification is stimulated. Consequently, the concentration of FFA within the cells falls and little FFA can be liberated into the circulating blood. In addition, the rise in blood sugar stimulates the secretion of insulin and this further increases the uptake of glucose, particularly by adipose tissue which is especially sensitive to the action of insulin. Under these conditions most of the body's energy requirements will be met by the oxidation of carbohydrate. There is a temporary shut down in the release of FFA from the depots and as a result there can be little fat available for oxidation.

Two to three hours or more after a meal the level of blood glucose falls so that there is less available for the tissues and a greater percent of the body's energy requirements will need to be provided by the oxidation of fat. The reduced supply of glucose to the fat depots will lead to a fall in the amount of glycerol phosphate produced within the cells so that the rate of esterification will be reduced. As a result the concentration of FFA within the cells will rise and increasing quantities will be liberated into the circulating blood and will thereby be available to supply the energy needs of the body. As fasting progresses so the magnitude of the release of FFA increases. Moreover, the increasing concentration of FFA interferes with the ability of adipose tissue to utilize carbohydrate so further depressing esterification and further increasing the release of FFA into the blood. In diabetes mellitus impairment of glucose utilization is particularly severe so that esterification is grossly depressed and large quantities of FFA accumulate within the depot cells and vast amounts pass out into the circulating blood. Indeed, the release may be so great that there may be difficulty in their adequate utilization and ketosis develops.

In addition to alteration in the rate of esterification, variations in the rate of breakdown of triglyceride are also of importance in determining the concentration of FFA within the depot cells and thereby in affecting the magnitude of their release. The rate of lipolysis is decreased in the absence of the anterior pituitary gland. The release of FFA from adipose tissue removed from hypophysectomised animals is impaired, whilst in hypophysectomised patients the concentration of circulating FFA rises more slowly and to lower levels during fasting than in normal subjects. The most important anterior pituitary factor

concerned is probably growth hormone, injections of which lead to a depletion of fat from the depots and a well marked rise in the concentration of FFA in the blood. Abnormally high levels of circulating FFA are seen in patients with acromegaly, and their interference with the metabolism of carbohydrate may be partially responsible for the impairment of carbohydrate tolerance that frequently occurs in acromegaly. In normal subjects, it is likely that variations in the quantity of growth hormone secreted during each 24 hours have an important influence in controlling FFA release from the depots. The rate of secretion of growth hormone increases progressively during fasting and rises sharply when the blood sugar falls as for example following an injection of insulin. Lipolysis is stimulated and will contribute to the accumulation of FFA within the depots and their increased release into the circulating blood. On the other hand, the secretion of growth hormone falls abruptly following a meal so that the rate of production of FFA will fall. Alterations in the concentration of FFA in the blood occur in patients with thyrotoxicosis and Cushing's syndrome, but the role played by TSH and ACTH is less well understood, for although they both have pronounced effects *in vitro*, injections of either TSH or ACTH in life have only small effects on the levels of FFA.

Adipose tissue is extremely sensitive to the action of the neurohormones adrenaline and noradrenaline. Both hormones cause a rapid stimulation of tissue lipase so that large quantities of FFA accumulate quickly within the cells and their level rises in the circulating blood within 5 minutes of injection. Increase in the rate of lipolysis induced by adrenaline would seem to be an important means by which increased quantities of FFA are made available quickly for utilization by the tissues. Adipose tissue is richly supplied by sympathetic nerve fibres and its normal innervation may play an important role in controlling the release of FFA. Denervation of tissue leads to an impairment in the release of FFA. Whereas, reflex stimulation of the sympathetic system, as occurs for example following emotional and painful stimuli or on alteration of posture, leads to an increased output of FFA into the blood, which is prevented by ganglionic blockade or by β -blocking agents. However, autonomic blockade causes little change in the normal fasting levels of circulating FFA, and it would seem that variations in sympathetic-adrenal medullary activity do not play any significant role in

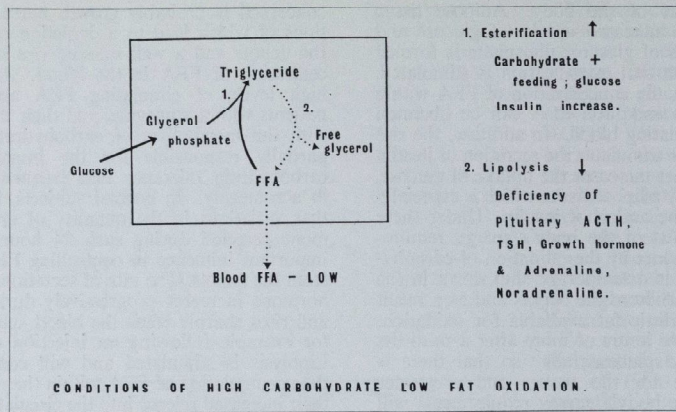


Diagram 4

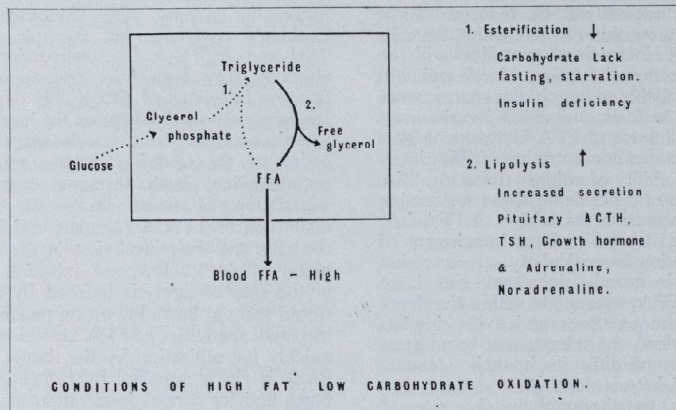


Diagram 5

controlling the release of FFA from the depots during fasting.

On the basis of the experimental work described, it would appear that there is an integrated system operative in the body that varies the relative quantities of FFA and glucose that are available for utilization by the tissues. The rate of mobilization of FFA from the depots is dependent on the metabolic activity of the adipose tissue itself and this is

influenced considerably by the sympathetic neurohormones and some of the secretions of the anterior lobe of the pituitary gland. Tentative schemata are illustrated in diagrams 4 and 5 showing the regulatory factors involved under the conditions of high carbohydrate—low fat oxidation and vice versa.

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- BRAIMBRIDGE, M. V., (with others). Reversed interatrial shunt following complete relief of pulmonary valve stenosis. *Brit. Heart J.*, 26, Sept., 1964, pp. 662-670.
- *BROWN, J. R., (and McLean, D. M.) Infection hazards of bathing. *Appl. Ther.*, 6, May, 1964, pp. 399, 401, 403.
- BUCKLE, R. M. Insulinoma with symptoms for thirty years. *Proc. roy. Soc. Med.*, 57, August, 1964, pp. 675-676.
- , and others. Death due to cerebral vasospasm. *J. Neurol. Neurosurg. Psychiat.*, 27, Oct., 1964, pp. 440-444.
- *CASSON, F. R. C. When lines get crossed. *Family Doctor*, November, 1964, pp. 662-663.
- *CHAMBERLAIN, D. A., and EDMONDS-SEAL, J. Effects of surgery under general anaesthesia on the electrocardiogram in ischaemic heart disease and hypertension. *Brit. med. J.*, Sept. 26, 1964, pp. 784-787.
- , see also MUIR, G. G., and others.
- CHRISPIN, A. R., (and STEINER, R. E.) Pulsatile flow in the pulmonary circulation: a cine-fluoroscopic study. *Brit. Heart J.*, 26, Sept., 1964, pp. 592-599.
- COCHRANE, R. G. Leper—a word loaded with prejudice. *Med. News*, Nov. 20, 1964, p. 11.
- COLE, P. V. Continuous epidural lignocaine—a safe method. *Anaesthesia*, 19, Oct., 1964, pp. 562-564.
- CORNFORDE, H. W. Dyslexia and allied disorders. *Curr. Med. Drugs*, 5, Nov., 1964, pp. 17-25.
- DALY, M. DE BURGH, and SCOTT, MARY J. The cardiovascular effects of hypoxia in the dog with special reference to the contribution of the carotid body chemoreceptors. *J. Physiol.*, 173, 1964, pp. 201-214.
- *DARMADY, E. M., (and others). Study of renal vessels by micro-dissection in human transplantation. *Brit. med. J.*, Oct. 17, 1964, pp. 976-978.
- *DE ALARCON. Hypochondriasis and depression in the aged. *Geront. clin.*, 6, 1964, pp. 266-277.
- *DOSSETOR, J. B., (with others). Hemodialysis in the treatment of shock. *J. surg. Res.*, 4, July, 1964, pp. 380-384.
- , (with others). Lacticacidosis: a clinically significant aspect of shock. *Canad. med. Ass. J.*, 90, 1964, pp. 673-675.
- , (with others). The role of intestinal perfusion in the management of chronic uremia. *Trans. Amer. Soc. Artif. Int. Organs*, 10, 1964, pp. 292-295.
- DOWIE, L. N. A case of alcohol induced pain of the larynx with aphonia. *J. Laryng.*, 78, Nov., 1964, pp. 1051-1052.
- DU BOULAY, G. H., (and MACDONALD, J. S.) Elusive tumours in the cervical spinal canal. *Brit. J. Radiol.*, 37, June, 1964, pp. 465-468.
- , see also BUCKLE, R. M., and others.
- EDMONDS-SEAL, J. see CHAMBERLAIN, D. A., and —.
- FISHER, A. G. T. Diagnosis and treatment of lumbar intervertebral disc lesions. *Practitioner*, 193, Nov., 1964, pp. 642-646.
- *FRANKLIN, A. WHITE. "Not men, but a method". *Brit. med. J.*, Sept. 19, 1964, pp. 748-750.
- *FREIER, S., (with others). The incidence and types of thalassaemia-trait carriers in Israel. *Brit. J. Haemat.*, 10, 1964, pp. 155-158.
- FULLER, A. P., (with MCALPINE, J. C.) Histochemistry of fresh frozen material in localised laryngeal amyloidosis. *J. Path. Bact.*, 88, Oct., 1964, pp. 455-462.
- *GARROD, L. P. Basic observations on combined therapy: evaluation and therapeutic significance of the results. *Proc. 11th Internat. Congr. Chemother.*, July, 1963, (1964), pp. 234-242.
- , Impact of the synthetic anti-infectives on the therapy of bacterial infection. *Advanc. Chem.*, 1964, pp. 39-48.
- , The penicillins. *Exp. Chem.*, 3, 1964, pp. 1-37.
- *HADFIELD, J. Prophylactic castration and simultaneous mastectomy and irradiation in premenopausal breast cancer. *Acta Un. int. Cancer*, 22, 1964, pp. 535-538.
- HARMER, M. H. Recent advances in T.N.M. *Brit. med. J.*, Nov. 21, 1964, pp. 1319-1321.
- *HARRIS, J. W. S. Oligohydramnios and cortisone-induced cleft palate. *Nature*, 203, Aug. 1, 1964, pp. 533-534.
- HIBBARD, B. M. Folic acid and reproduction. *Med. News*, Nov. 6, 1964, p. 13; Part II. Nov. 13, 1964, p. 14.
- HOULDER, A., see WEITZMAN, D., and others.
- *HOWELL, T. H. Pathological problems in nonagenarians. *J. Amer. Geriat. Soc.*, 12, May, 1964, pp. 410-414.
- , Terminal and sub-terminal infections in nonagenarians. *Geront. clin.*, 6, 1964, pp. 292-296.
- HUNT, A. H. Haematemesis in portal hypertension. *Brit. J. Surg.*, 51, Oct., 1964, pp. 749-754.
- *HUNTER, R. A., (and others). An apparently irreversible syndrome of abnormal movements following phenothiazine medication. *Proc. roy. Soc. Med.*, 57, August, 1964, pp. 758-762.
- JENKINS, J. S., (and ELKINGTON, S. G.). Metyrapone and pyrogen in the assessment of pituitary-adrenal function after removal of pituitary adenoma. *Lancet*, Nov. 7, 1964, pp. 991-994.
- KERSLEY, G. D. The value and dangers of anti-malarial therapy in arthritis with special relation to the ophthalmic complications. *Proc. roy. Soc. Med.*, 57, August, 1964, pp. 669-671.
- KINMONTH, J. B., (with others). Comparison of materials for repair of cardiac defects. *Thorax*, 19, Sept., 1964, pp. 454-457.
- , (with others). Endolymphatic therapy with radioactive gold for malignant melanoma. *Brit. med. J.*, Oct. 10, 1964, pp. 904-906.
- LAWTHER, P. J. Air pollution—the reason why. *Health*, 1, Oct., 1964, pp. 132-134.
- LEES, F. Cervical spondylosis. *Nurs. Times*, Sept. 25, 1964, pp. 1240-1242.
- , (and others). Leber's disease with symptoms resembling disseminated sclerosis. *J. Neurol. Neurosurg. Psychiat.*, 27, 1964, pp. 415-421.

- LEHMANN, H., (with others). Haemoglobin J. BALTIMORE in a Kent family. *Brit. med. J.*, Oct. 10, 1964, pp. 921-922.
- , (with others). Two unrelated patients with congenital cyanosis due to haemoglobinopathy M. *Lancet*, Oct. 10, 1964, pp. 786-789.
- L'ETANG, H. The last doctor to win the V.C. *Med. News*, Nov. 13, 1964, p. 23.
- , Outstanding in research and bravery. *Med. News*, Oct. 9, 1964, p. 20.
- LLOYD, H. M., (and others). Idiopathic haemochromatosis in menstruating women. *Lancet*, Sept. 12, 1964, pp. 555-560.
- MCALISTER, JOAN M., see WEITZMAN, D., and others.
- MACDONALD, A.-M.E., see LEES, F., and others.
- *MACFARLANE, R. G. An enzyme cascade in the blood clotting mechanism, and its function as a biochemical amplifier. *Nature*, 202, 1964, pp. 495-499.
- *—, Introduction to *Biological aspects of occlusive vascular disease*. 1964. Pp. 165-167.
- *—, (and ASH, B. J.) The activation and consumption of factor X in recalcified plasma. *Brit. J. Haemat.*, 10, 1964, pp. 217-224.
- MCMENEMEY, W. H. The hospital movement of the eighteenth century and its development. In *The evolution of hospitals in Britain*, edited by F. N. L. Poynter. 1964. pp. 43-71.
- , (with others). Clinical and pathological observations on Jamaican neuropathy. *Brain*, 87, Sept., 1964, pp. 425-462.
- *MILLARD, F. J. C., (with others). The radiographic appearances of the chest in persons of advanced age. *Brit. J. Radiol.*, 37, 1964, pp. 769-774.
- MUIR, G. G., and others. Effects of β -sympathetic blockade on non-esterified-fatty-acid and carbohydrate metabolism at rest and during exercise. *Lancet*, Oct. 31, 1964, pp. 930-932.
- *NOBLE, M. I. M., (with others). Studies on the vagus nerves in man: their role in respiratory and circulatory control. *Clin. Sci.*, 27, Oct., 1964, pp. 293-304.
- *O'CONNELL, J. E. A. The treatment of protrusions of the lumbar intervertebral discs. *Physiotherapy*, 50, Sept. 1964, pp. 294-296.
- OSWALD, N. C. The speciality of chest medicine. *Brit. med. J.*, Oct. 10, 1964, pp. 935-939.
- *PARE, C. M. B. Side-effects and toxic effects of antidepressants. *Proc. roy. Soc. Med.*, 57, August, 1964, pp. 757-758.
- PERKINS, E. S. Advances in ophthalmology. *Practitioner*, 193, Oct., 1964, pp. 440-446.
- PLEYDELL, M. J. The future of the health and welfare services. *Nurs. Mirror*, 119, Nov. 6, 1964, pp. v-vii.
- *POTTER, J. M., (with others). Symposium: Medical and surgical considerations in the treatment of maxillo-facial injuries. *Brit. dent. J.*, 116, 1964, pp. 63-72.
- PRICE, D. J. E., and SHOOTER, R. A. Toxin production of faecal strains of *clostridium welchii*. *Brit. med. J.*, Nov. 7, 1964, pp. 1176-1177.
- *QUILLIAM, J. P. Closed circuit television as an aid in the teaching of medical students. *University Film Journal*, pp. 7-8.
- *RAVEN, R. W. Carcinoma of the breast. *Med. Digest*, 9, Nov., 1964, pp. 465-468.
- , Carcinoma of the tongue. *Nurs. Times*, 60, Nov. 13, 1964, pp. 1490-1491; Part II. Nov. 20, 1964, pp. 1533-1535.
- *RENBOURN, E. T. Clothing: physiology, hygiene and psychological aspects: part II. *Curr. Med. Drugs*, 5, Sept., 1964, pp. 3-24.
- *—, Physiologie du vêtement. *Cahiers CIBA*, 1964, pp. 2-36.
- SCOTT, MARY J., see DALY, M. DE BURGH, and —.
- SHOOTER, R. A., see PRICE, D. J. E., and —.
- *SIMON, G., (with others). The radiographic appearances of the chest in persons of advanced age. *Brit. J. Radiol.*, 37, 1964, pp. 769-774.
- SMITH, BARBARA, see BUCKLE, R. M., and others.
- SPECTOR, W. G. Endogenous inflammatory mechanisms in the rat. *Injury, inflammation and immunity*, 1964, pp. 178-182.
- *—, and WILLOUGHBY, D. A. Endogenous mechanisms of injury in relation to inflammation. *Ciba Foundation Symposium on Cellular Injury*, 1964, pp. 74-82.
- , see also WILLOUGHBY, D. A., and —.
- THOMAS, D. P. Some factors influencing the size of pulmonary emboli. *Lancet*, Oct. 31, 1964, pp. 924-927.
- *—, (and others). Mechanism of bronchoconstriction produced by thromboemboli in dogs. *Amer. J. Physiol.*, 206, June, 1964, pp. 1207-1212.
- THROWER, W. R. Towards better milk. *Med. News*, Oct. 2, 1964, p. 12.
- TUBBS, O. S., (and others). Constrictive pericarditis in association with rheumatoid arthritis. *Thorax*, 19, Nov., 1964, pp. 555-560.
- TUNSTALL PEDOE, D., see MUIR, G. G., and others.
- TURNER, J. W. ALDREN, Parkinsonism—its aetiology and treatment. *Nurs. Mirror*, 119, Nov. 6, 1964, pp. 135-136; Nov. 13, 1964, pp. 154-155.
- , see also LEES, F., and others.
- *TURNER, P. Problems of assessment of drugs in animals and man. *J. med. Wom. Fed.*, Oct., 1964.
- WEITZMAN, D., and others. Localization of left-to-right shunts by radioactive krypton. *Brit. Heart J.*, 26, 1964, pp. 577-583.
- *WENDELL-SMITH, C. P. Effect of light deprivation on the postnatal development of the optic nerve. *Nature*, 204, Nov. 14, 1964, p. 707.
- *—, (with others). Further uses and methods of processing of fresh frozen sections of peripheral nerve. *Quart. J. micr. Sci.*, 103, 1964, pp. 99-105.
- WILLOUGHBY, D. A., and SPECTOR, W. G. The production of eosinophilic deposits resembling fibrinoid by injections of lymph-node extracts. *J. Path. Bact.*, 88, Oct., 1964, pp. 557-562.
- *—, and others. Effect of RNA on vascular permeability in the rat. *Nature*, 203, Aug. 22, 1964, p. 882.
- , see also SPECTOR, W. G., and —.
- *WINSTOCK, D. Hereditary gingivo-fibromatosis. *Brit. J. oral Surg.*, 2, July, 1964, pp. 59-64.

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ST. BARTHOLOMEW'S HOSPITAL JOURNAL
**CLINICAL AND
RESEARCH SUPPLEMENT**

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**POST-PROSTATECTOMY URINARY
INFECTION**

By Joe C. Smith and Francis O'Grady

Post-prostatectomy urinary infection remains one of the unsolved problems of the operation. Although its lethal potential has been diminished following the introduction of antibiotics it still gives rise to serious complications.

Any assessment of urinary infection depends first on diagnosis. The usual symptoms of urinary infection (fever, frequency of micturition, and dysuria) are of little value in the assessment of post-prostatectomy infection as they are frequently present in un-infected patients. Following prostatectomy, urinary white cell excretion is commonly high in the absence of infection and persists probably until the prostatic cavity is fully epithelialised. In acute spontaneous urinary tract infection, the presence of 10^5 or more organisms/ml. of freshly voided urine is regarded as diagnostic (Marple, 1941; Kass, 1957). It has not been established that this criterion is applicable to post-prostatectomy patients, and Gillespie and his colleagues (Gillespie *et al.*, 1960; Miller *et al.*, 1958) accepted the low value of 3,000 organisms per ml. as indicating infection. We

have carried out quantitative examinations of urine for white blood cells and organisms in a series of post-prostatectomy patients in order to examine the following factors:

1. The criteria and incidence of infection.
2. The factors implicated in its causation.
3. The incidence of different bacterial species and the frequency of mixed infections.
4. Whether organisms initially present in small numbers later cause infection.
5. Whether Gram positive organisms are commonly implicated, as a previous study of patients with urethral stricture had shown frequent chronic infection with Gram positive organisms.

Methods

We studied a consecutive series of 26 patients admitted for prostatectomy (retropubic or trans-urethral) who were shown to have sterile urine on admission.

Cystoscopic urine specimens were taken at operation and daily specimens collected during the period of closed drainage until the catheter

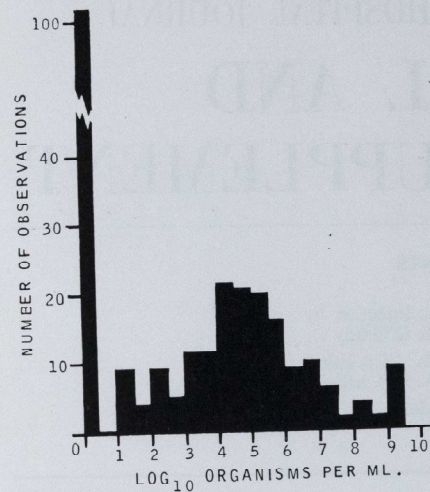


FIG. 1.—Shows the distribution of organism concentrations in all the specimens of urine examined. was removed. Thereafter, daily mid-stream specimens were examined until the patient left hospital.

Collection was personally supervised by the dresser and the specimens were delivered to the laboratory within half an hour or refrigerated until examined. One patient received tetracycline after the pattern of urinary infection had been established. One patient who had been previously infected received nitrofurantoin from the first post-operative day. These patients will be specifically noted, and none of the remaining results apply to periods when the patients were receiving antibacterial substances. The day of removal of the catheter and the number and timing of bladder washouts were noted—bladder washouts being only performed for treatment of actual or threatened clot reaction.

Bacteriology

Conventional bacteriological examination of the deposit and stained films, and white cell

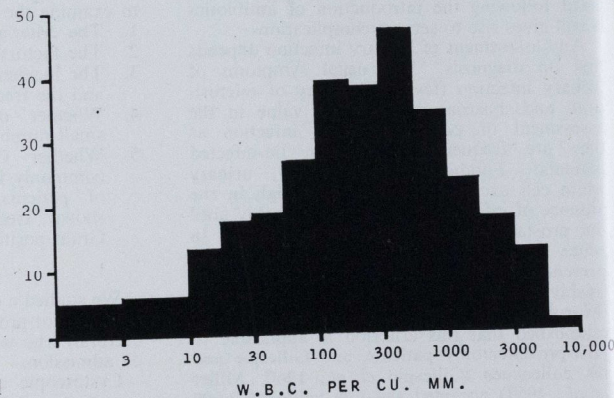


FIG. 2.—Shows the distribution of white cell concentration in all the specimens of urine examined.

count were performed. Bacterial counts were carried out by spreading 1 cu. mm. of urine (transferred by a welded wire loop) on the surface of a blood agar plate. Another plate was spread with the same volume of urine diluted 1 in 1,000. No colonies on either plate indicated a count of less than 10^3 organisms/ml. and the urine, which had meantime been refrigerated, was re-examined for the presence of very small numbers of organisms by flooding a blood agar plate with 0.1 ml. of undiluted urine. Species isolated were identified and antibiotic sensitivity pattern of each organism determined.

Results

Figure 1 shows the distribution of bacterial counts and Figure 2 the distribution of white cell counts. The bacterial counts fail to show a bi-phasic distribution which would serve to distinguish significant from non-significant bacteriuria, although there is a suggestion of an excess of counts above 10^4 /ml. which may correspond with infected urines. The distribution of white cell counts shows no sign of separation into infected and non-infected groups and this is supported by the very weak correlation between white cell and bacterial counts (Fig. 3).

In the absence of satisfactory criteria of infection based solely on bacterial and white cell concentrations, we have divided the patients into three groups:

Group I. Those whose urine remained sterile throughout or showed occasionally the presence

of small numbers (10^3 /ml. or less) of micrococci which would, by any standards, be regarded as insignificant. One patient is included in this group whose urine on a single occasion yielded 10^7 micrococci/ml. The findings of these patients are summarised in Table I.

Patient	Sterile	Micrococci
1	12	
2	6	
3	10	3 (10^2)
4	5	
5	6	1 (10^7)
6	4	9 (10^2)
7	8	3 (10^3)
8	11	2 (10^3)
9	7	2 (10^3)

TABLE I.—Findings in patients regarded as uninfected. Numbers of urines found to be sterile or yielding micrococci only. The figures in brackets are the highest concentrations of organisms found.

Group II. Those whose urine regularly yielded organisms often in significant numbers. These patients have been regarded as infected. The findings in these patients are shown in detail in Fig. 4. In addition to micrococci, escherichia were isolated from five patients; proteus from three; pseudomonas from one;

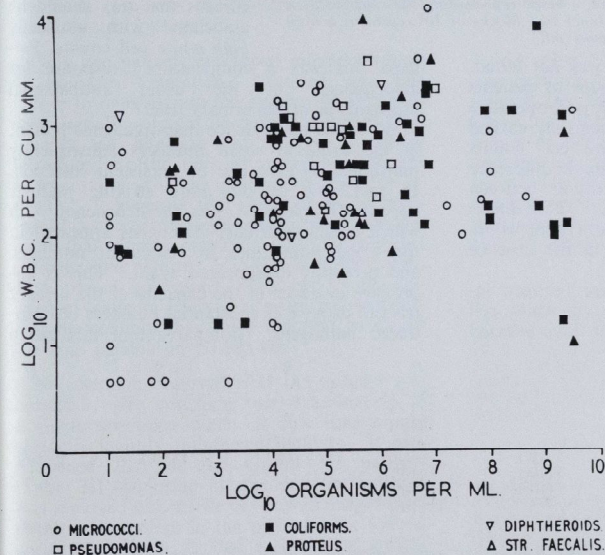


FIG. 3.—Shows the relationship of organism to white cell concentration in all the specimens examined, divided according to bacterial species.

S. faecalis from one; and more than one organism from three.

Group III. Those from whom organisms (in some cases the same and in some cases different) were irregularly isolated, sometimes in significant and sometimes in insignificant numbers. The findings in these patients are summarised in Table II.

Having classified the patients in this way, we compared the three groups for output of white cells in the post-operative period (Fig. 4).

Discussion

Infection developed in eight out of 26 patients (31 per cent). In agreement with the findings of Gillespie *et al.* (1960), even in those patients from whom organisms were persistently isolated, the concentration did not always reach the level (10^3 /ml.) regarded as significant in acute urinary tract infection. The organisms isolated were the common urinary pathogens and were unremarkable apart from the frequent isolation of micrococci. As seen in Fig. 4 there was commonly a prodromal period of micrococcal excretion before Gram negative bacilli became established. Micrococci are normally present in the anterior urethra and may have access to the bladder which is facilitated by the presence of an indwelling catheter. It is possible that the appearance of substantial numbers of micrococci in the urine of these patients was the first sign of impairment of the mechanisms normally responsible for suppressing their growth in the bladder. If this mechanism is non-specific, the micrococci might be expected to be replaced in due course by more pathogenic bowel organisms. We have included in the infected group a patient who persistently excreted micrococci, although again the concentration only reached 10^3 /ml. on two occasions. Apart from the regular appearance of micrococci, the high incidence of *S. faecalis* and *Staph. aureus* encountered in a series of

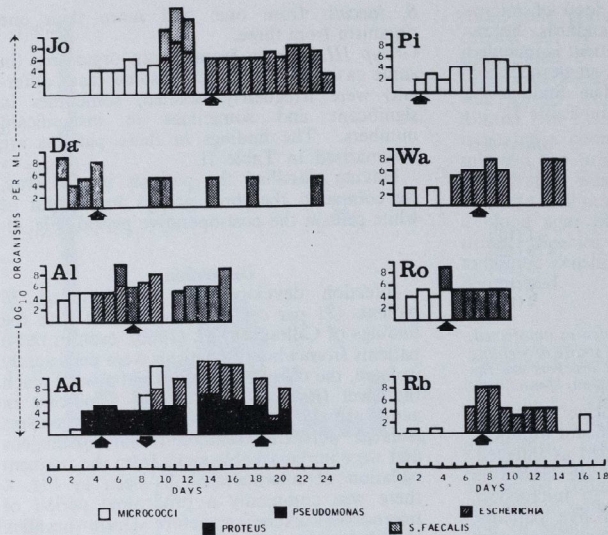


FIG. 4.—Shows the bacteriological findings in the urines of patients (initials given) in the infected group throughout their hospital stay. When more than one organism was isolated, a block representing the concentration of each organism is shown. Hence two blocks of 10^3 represent a total count of 2×10^3 , not 10^6 organisms/ml.

patients with urethral stricture was not found.

Comparison of the three groups of patients for output of white cells in the post-operative period (Fig. 4) confirmed the conclusion reached from the distribution of white cell counts (Fig. 2) that there was no systematic difference in urinary white cell concentration between infected and uninfected patients. This differs from the findings of Miller *et al.* (1958) whose patients rarely showed pyuria in the absence of infection.

The general lack of difference between infected and uninfected patients in white cell excretion makes the behaviour of three infected

Patient	St	M	E	P	A	S	D
1	7	1 (10^5)		2 (10^5)			
2	4	5 (10^5)		7 (10^5)			
3	6	3 (10^5)		1 (10^5)			
4	7	4 (10^5)			2 (10^5)	1 (10^5)	2 (10^5)
5	3	9 (10^5)	3 (10^5)		1 (10^5)		
6	4	10 (10^5)	5 (10^5)	1 (10^5)			
7	7	6 (10^5)	7 (10^5)	1 (10^5)			
8	2	2 (10^5)		11 (10^5)			
9	6	11 (10^5)					3 (10^5)

TABLE II.—Findings in Group III patients. Numbers of urines found to be sterile (St) or contain micrococci (M) escherichia (E) proteus (P) alkaligenes (A) streptococcus faecalis (S) diphtheroids (D). The figures in brackets are the highest concentrations of the organisms found.

patients particularly striking. These (AL, AD and JO in Fig. 4) were responsible for all the counts above the highest non-infected counts in Fig. 5.

The only common clinical factor was later than average removal of the catheter. In one patient the catheter was removed early but soon replaced for a prolonged period. One bacteriological factor which the three shared and in which they differed from the other infected patients was that all were infected with more than one organism in addition to micrococci. The difference was not simply one of total concentration of organisms because some other patients had single organism concentrations as high or higher. Double or super-infection might suggest hyper-susceptibility and it is curious that this should be associated with unusually high white cell counts. Per-

haps this was a compensatory response for inadequacies in the usual antibacterial mechanisms of the urinary tract?

We found no evidence that organisms present in the urine in small numbers subsequently multiplied to give rise to persistent infection. In fact, one of the more striking findings (Group III patients) was the frequency with which common urinary pathogens appeared in the urine, sometimes in significant numbers, and promptly disappeared again. This is impressive evidence of the capacity of the urinary tract to dispose of substantial numbers of introduced pathogens. Comparison of this group

with the patients in whom infection became established did not give any clue as to the nature of any impairment of this clearance in the infected patients.

One patient in the uninfected group received tetracycline for a chest infection but this did not begin until after the catheter was removed. Patient AL also received tetracycline from the eighth day. As can be seen in Fig. 4 multiple infection was already present when treatment began and the bacterial counts in urine were not lowered by the therapy. Hence the general conclusions regarding multiple infection and low bacterial counts are not affected. Through an oversight, nitrofurantoin was prescribed for one patient from the first post-operative day on the grounds that he had had an infection in the past with a nitrofurantoin-sensitive organism. He was the patient infected with *Pseudomonas pyocynae*.

Only two patients developed infection within 48 hours of operation. Coupled with our failure to demonstrate the emergence of organisms initially present in small numbers, this suggests that infection with urethral organisms introduced at the time of operation was not as important as in the patients of Miller *et al.* (1960). It suggests that infection more commonly occurred during post-operative management than during operation. Of the infected patients, five required bladder washouts within 48 hours of operation. Only two of the uninfected patients (Group I) required washouts but interestingly they were required in six of the nine patients in Group III.

No infection occurred after the catheter was removed. We conclude that examination of a single specimen taken at this time would correctly identify uninfected patients. It also happened that in the Group III patients (Table II) the urine on the day the catheter was removed was sterile or showed insignificant bacteriuria—except in the patient who, following two washouts, yielded a significant growth of an alkaligenes. It is evident, however, from the general behaviour of the Group III patients

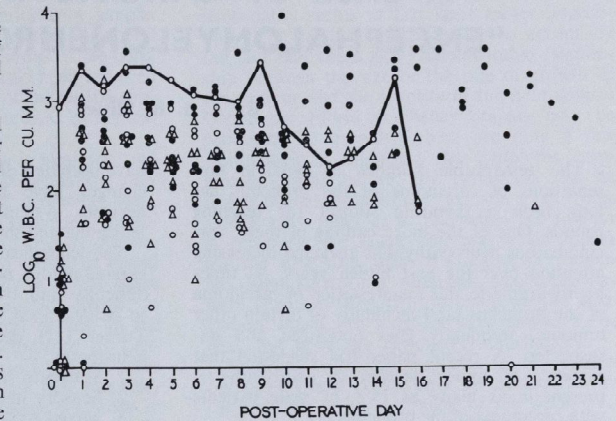


FIG. 5.—Shows white cell excretion throughout the post-operative period. O=Group I (uninfected) patients; ●=Group II (infected) patients; △=Group III patients. The heavy line joins the highest counts in uninfected patients.

that reliance on a single specimen may falsely lead to the diagnosis of infection.

Summary

In a series of patients in whom prostatectomy was performed, daily examination of the urine showed that about one third remained sterile, about one third became infected, and about one third showed the transient appearance and spontaneous disappearance of urinary pathogens. The significance of these findings and the importance of the in-dwelling catheter and post-operative bladder washouts in the induction of infection is discussed.

Acknowledgements

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REFERENCES

- GILLESPIE, W. A., LINTON, K. B., MILLER, A., and SLADE, N. (1960): *J. clin. Path.*, **13**, 187.
 KASS, E. H. (1957): *Arch. intern. Med.*, **100**, 709.
 MARPLE, C. D. (1941): *Ann. intern. Med.*, **14**, 2220.
 MILLER, A., GILLESPIE, W. A., LINTON, K. B., SLADE, N., and MITCHELL, J. P. (1958): *Lancet*, **2**, 608; (1960): *Lancet*, **2**, 886.

A CASE OF CARCINOMATOUS "ENCEPHALOMYELONEUROPATHY"

By A. J. B. Missen

The remarkable number of possible presentations of carcinoma of the bronchus has long been a favourite subject for teaching rounds. One of the more baffling of these, carcinomatous neuropathy, has attracted increasing attention over the past fifteen years. At times highly dramatic, this manifestation of carcinoma of the bronchus (and incidentally of certain other tumours) frequently goes unnoticed and unsuspected. A recent paper has suggested that evidence of minor degrees of neuropathy is present in as many as 16% of male patients with carcinoma of the bronchus (1).

It was in 1948 that Denny-Brown initially focused attention on the subject by his detailed description of two cases, (2), though Kendall had demonstrated a case before the Royal Society of Medicine in 1938, (3), and in 1933 Parkes, Weber and Hill described a case of polyneuritis with degeneration of the posterior columns of the cord in a man with carcinoma of the bronchus, without any evidence of metastatic involvement of the spinal meninges (4). Five further cases of carcinoma of the bronchus and peripheral neuritis from the Hammersmith Hospital were described in 1950 by Lennox and Pritchard (5) who concluded from their statistical studies that there was a "real, if small association between these two conditions". Since 1950 there have been several descriptions of further cases, (6) (7), including one in association with carcinoma of the kidney (16).

The association of cerebellar degeneration (involving the destruction of Purkinje cells) with malignant disease of various viscera was mentioned in a review article by Brouwer and Biemond in 1938 (8) and by Brouwer and Schlesinger in 1947 (9). In 1951 Brain, Daniel, and Greenfield (10) reported three cases of subacute cerebellar cortical degeneration—two of these were associated with carcinoma of the bronchus and one with carcinoma of the ovary. After reviewing the literature they concluded that there was a high correlation between carcinoma and subacute cerebellar cortical degeneration. Since then many papers have supported this view and carcinomata of the breast, stomach, uterus, ovary and prostate

have been described in this association. Recently changes have been reported in the central nervous system of patients suffering from leukaemia and the reticuloses.

The classification of the various forms of carcinomatous neuropathy is a matter of some difficulty and overlap may occur as the case to be described subsequently will show. Aldren Turner (11) described three main types of neuropathy:—

1. Subacute spino-cerebellar degeneration
2. Sensory neuropathy
3. Mixed motor and sensory neuropathy

Into a fourth category he put cases with myopathic manifestations, some of which had myasthenic features suggesting a disturbance at the neuromuscular end-plate. Brain in his classification places the first three groups under the heading of carcinomatous encephalomyeloneuropathy, and includes a fourth predominantly motor type of neuropathy. Of the four sub-groups the most dramatic in its manifestations is the first. There is a progressive cerebellar degeneration with the triad of ataxia, dysarthria (scanning speech) and nystagmus, which may be so severe that the patient is grossly incapacitated. An associated dementia is not uncommon. Occasionally both pyramidal and extrapyramidal signs are found and ptosis, ophthalmoplegia and bulbar palsy may occur. The c.s.f. in these cases usually shows a raised protein and a lymphocytosis. (Henson, Russell and Wilkinson—2 cases; Brain, Daniel and Greenfield—3 cases; Jewesbury—1 case (12)). At post-mortem a marked loss of Purkinje cells is seen in the cerebellar cortex, associated with demyelination in the posterior columns of the cord. Occasionally demyelination is also seen in the pyramidal tracts.

Denny-Brown's two cases were of almost pure sensory neuropathy. The most usual symptoms are of pain and paresthesia, commonly starting in the lower limbs and spreading gradually to involve the whole body. Even in the presence of severe symptoms there is often very little objective confirmation of their existence in the early stages. Later, however, almost complete deafferentation may take place resulting in a

sensory ataxia and absent tendon jerks. The major damage is seen to lie in the degeneration of the cells of the posterior root ganglia with demyelination occurring in the peripheral nerves and in the posterior columns of the cord. This type of neuropathy has also been reported in association with carcinoma of the oesophagus, and with single cases of post-cricoid carcinoma and malignant thymoma (11).

In motor neuropathies there is weakness and wasting of muscle groups—fasciculation may be seen and, in the absence of cerebellar signs, motor neurone disease may be suspected. Microscopic examination of the cord reveals degenerative changes in anterior horn cells. The mixed sensory and motor neuropathy is as its name implies; the predominant morbid change is demyelination of the peripheral nerves. In the five essentially similar cases described by Lennox and Pritchard, motor manifestations were predominant but in the one case that was fully examined histologically no change was seen in the anterior horn cells. A recent survey of 24 cases of carcinomatous neuropathy from the literature quotes a raised c.s.f. protein in six. Only one had an increase of cells in the c.s.f. (13).

Psychological disturbances, ranging from lability of mood and depression to frank dementia, are often seen in association with carcinomatous neuropathies and may lead to the patients admission to mental hospital.

The myopathic group of disorders mentioned by Aldren Turner comprise the second group in Brain's classification of the non-metastatic neurological complications of carcinoma of the bronchus—the "Myopathic-myasthenic syndrome". This group comprises cases in which morbid changes in the muscles are surprisingly slight and non-specific in nature. Muscular weakness and wasting are most marked in the limb girdles and proximal parts of the limbs. A proportion of cases exhibit myasthenic features—fatigability which improves in response to neostigmine and other anti-cholinesterase drugs. Brain's third group consists of cases of progressive multifocal leucoencephalopathy. This condition is usually associated with leukaemia or one of the reticuloses, and patchy demyelination of the cerebral white matter is found together with changes in the staining characteristics of the oligodendrocytes and hyperplasia of the astrocytes.

Aetiology of the neuropathies

"The more improbable a syndrome, the more necessary is its study," say Lennox and Pritch-

ard in their opening paragraph. Certainly an association between malignant disease and neuropathy seems at first sight rather improbable. The idea is made harder to accept by the fact that there is no demonstrable relationship between the size or the rate of growth of the tumour and the severity of the neurological symptoms. Florid cerebellar ataxias may be produced by growths which are only a few millimetres in diameter, the symptoms commonly appear before any carcinoma can be demonstrated (sometimes as much as three years), may remit at a time when the tumour is obviously enlarging, and may even appear for the first time after the causative tumour has been successfully removed. Many theories have been put forward to account for the association which the statistics have shown to be real, but none are completely satisfactory.

Multiple secondary deposits in the central nervous system could only be excluded with certainty by serial sectioning of the whole system from top to bottom, but the basic uniformity of the histological changes and the large number of cases examined without any evidence of multiple microscopic secondary deposits makes this an improbable solution. Denny-Brown noted the similarity between his cases of sensory neuropathy, and the histological findings in pigs fed on a diet deficient in pyridoxine and pantothenic acid is not rewarding. The idea of the tumour either producing a toxin or selectively absorbing some vital metabolite is hard to accept in view of the lack of relationship between the size of the tumour and the severity of the neurological damage. Brain (14), discussing the difficulties of investigating the aetiology of the neuropathies, mentions the theory that they may be viral in origin (this might explain the perivascular lymphocytic reaction sometimes observed in the tissues of the central nervous system)—the viruses in question being secondary invaders of the tumour. The minute size of some of the tumours together with the appearance in some instances of a surrounding tissue reaction might imply a defence mechanism on the part of the host. The idea of explaining the syndrome on the basis of an immune response has received impressive support in the past few months. Wilkinson (15) has been able to demonstrate complement fixing anti-brain antibodies in the serum of four patients with carcinomatous sensory neuropathies, but so far attempts to find similar antibodies in other subdivisions of the syndrome have been largely unsuccessful. The mystery remains unsolved but its final

elucidation may well contribute much to our understanding of neoplastic processes.

Case History.

The patient was a man of 47 who worked as a chief salesman at a bakery. He presented initially in August 1961 with a thirteen month history of tingling feelings from the waist to the toes in both legs. The sensation was constant but was made worse by long periods of sitting. For about one year he had noticed difficulty in balancing both when walking, and when standing still, and also that he was tending to drag his feet. He gradually lost position sense in his feet (noticed when he was driving) and though light touch seemed normal, sensitivity to pain was reduced. During the year his legs became numb and temperature sensation was lost. At this time he had no other symptoms whatever. There was no relevant past history. He smoked 30 cigarettes daily and consumed an occasional pint of beer. On examination the cranial nerves and upper limbs were normal. The abdominal reflexes were absent. Objective sensory testing failed to confirm the numbness below the inguinal ligaments of which the patient complained but vibration and postural sensation were absent below the knees, and two-point discrimination was very inaccurate over the whole of both legs. Graphæsthesia and temperature appreciation were normal. The knee jerks were rather brisk but equal, the ankle jerks normal and the left plantar response was extensor. No other abnormality was found. Fractional test meal was normal, W.R. and R.P.C.F.T. negative. Lumbar puncture yielded clear fluid at a pressure of 170 mm. of c.s.f. and jugular compression resulted in a rather slow rise and fall. Total c.s.f. protein was 400 mgm. per 100 ml., cells were less than one per cu. mm. Myelography showed a complete obstruction to the upward flow of the contrast medium and a small indentation of the dura at the level of the T 7/8 disc space in which there was also a small amount of calcification. A thoracic laminectomy was performed, the dura being exposed by the removal of the spines and laminae of T 7, 8 and 9. Pulsation was seen to be well marked above the level of the T 7/8 intervertebral disc and reduced below it. Incision of the dura resulted in posterior herniation of the cord. A leash of vessels was present over the right posterolateral column and a bluish spot was noted here beneath the arachnoid. When the cord was retracted an anterior extra-dural mass was exposed, the dura over this being injected and

adherent to the arachnoid. A lateral approach was made and a quantity of friable disc tissue was removed. Proximal and distal bony lips were not excised. Lateral relieving incisions were made in the dura and repair was effected with gelatin sponge. Post-operatively position sense was grossly impaired and both plantar responses were extensor. The patient made good progress and was walking well on discharge. At follow-up four months later he was asymptomatic and the only residual sign was an equivocal plantar response on the right side.

Soon after he was seen at follow-up the patient returned to work but after two or three weeks noticed increasing tiredness, a renewed tendency to drag his feet and aching pains throughout his body. He became depressed and emotionally labile, with frequent episodes of weeping. The patient's own doctor thought the symptoms were functional and reassured him, but he continued to deteriorate and a month later he became ataxic in the left arm. During the next two weeks his concentration went, he developed misting of vision and a marked slurring of speech. He had also been vomiting and complaining of intermittent headaches. He was admitted initially to Fairfield Mental Hospital and subsequently transferred back to the Department of Neurological Surgery at St. Bartholomew's Hospital on 5th January, 1962.

On examination the patient seemed well orientated in space and time though rather agitated. His speech was slurred and scanning in nature. All movements were grossly ataxic and the patient looked extremely ill. There was bilateral horizontal and vertical nystagmus. Sensation to pinprick was reduced on both sides of the face in the distribution of the maxillary division of the trigeminal nerve. The corneal reflexes were bilaterally depressed. There was a suggestion of right sided facial weakness, otherwise the cranial nerves were normal. Neck stiffness was marked and Kernig's sign was positive. In the limbs there was diffuse weakness and hypotonia with severe ataxia, most marked in the left arm, in which there were also gross involuntary movements. The arm reflexes were all present and equal, and sensory testing was normal. The leg reflexes were only just obtainable and the left plantar response was extensor. Sensory testing revealed no abnormality. During a three weeks course the patient's condition steadily deteriorated. He developed burning pains in the legs of increasing severity, retention of urine, twitching movements of the left leg as well as arm, and a severe bulbar paresis. The muscle weakness

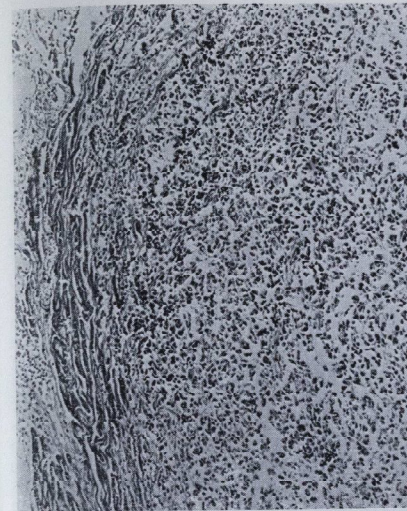


FIG. 1.—The anaplastic oat-cell carcinoma of the bronchus showing a part of the collagenous capsule. Haematoxylin and van Geisson. $\times 95$.

and dysarthria got progressively worse and he became dysphasic as well. Mentally he became steadily more agitated with periods of depression and weeping. He died three weeks after admission.

The following investigations were done:— Hb 82%. W.b.c. 8000 per cu. mm. (normal differential). Serum electrolytes normal, blood urea 37 mgm./100 ml. L.P. pressure 70 mm. of c.s.f., with free rise and fall on jugular compression. C.s.f. clear and colourless, containing 560 mgm./100 ml. of protein and 18 lymphocytes per cu. mm. C.s.f. W.R. negative. No A.F.B. were found in the c.s.f., nor were any malignant cells found in the c.s.f. or the sputum. Chest X-ray was normal.

Pathological findings.

At post-mortem examination the relevant findings were as follows:— The brain weighed 1,450 grams. There was no external abnormality and no sign of meningitis or meningeal thickening. Spondylotic ridges were present above and below the T 7/8 intervertebral space and to these the dura was adherent. Macroscopic and X-ray examination of the lungs failed to show any abnormality, but cutting serial sections of the left lung at 3 mm. intervals revealed

a suspicious area which proved on microscopy to be an anaplastic carcinoma of the bronchus about 4 mm. in diameter. The most striking feature of this tumour was not its small size, but the dense collagenous capsule which surrounded it. The significance of this rare association between an anaplastic carcinoma and a dense fibrous reaction is hard to assess but, as already stated it is tempting to regard the capsule as a defensive mechanism on the part of the host. The tumour was situated close to the origin of the left upper lobe bronchus. Only one neighbouring lymph node showed signs of metastatic spread.

Microscopy of sections from the central nervous system showed the effects of a widespread polioclastic process following an anatomical distribution now known to be typical of this syndrome. Dead and dying neurones were seen, associated with lymphocytic infiltration and microglial proliferation, in the anterior horn cells of the cord and in the posterior root ganglia at all levels. Similar changes were seen in the medulla (especially the olives), the pons and the peri-aqueductal grey matter of the mid-brain. The loss of Purkinje cells in the cerebellar cortex described in earlier case reports was most marked in the lateral lobes and the vermis; there was a fine gliosis of the molecular

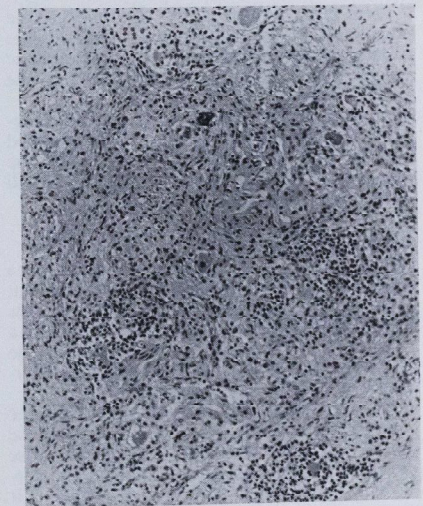


FIG. 2.—Posterior root ganglion showing neuronal destruction and lymphocytic infiltration. Haematoxylin and eosin. $\times 105$.

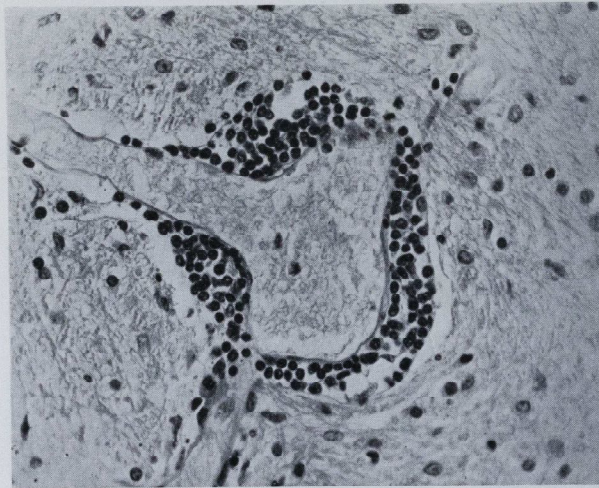


FIG. 3.—Perivascular cuffing from the white matter of the cerebellum. Many of the cells are plasma cells. Hematoxylin and eosin. x 300.

layer. In the cerebral cortex scattered foci of gliosis and neuronal death were found in the temporal lobes, especially in the hippocampal regions.

There was demyelination of some of the long tracts of the spinal cord especially the posterior columns in the cervical and thoracic regions and the spino-cerebellar tracts in the lumbar region.

Portions of the deltoid, psoas and diaphragmatic muscles which were examined all showed signs of early denervation consistent with the damage to anterior horn cells observed at all levels of the cord.

Discussion

This case is of considerable interest since within the space of eighteen months the patient suffered two major neurological disturbances which might well have been considered as a single entity were it not for the fullness of the data available from clinical, radiological, operative and post-mortem investigations.

Intervertebral disc protrusions may affect the cord in one of two ways. The cord may be contused or even lacerated by a sudden disc protrusion. Such damage is usually of a permanent nature and recovery of function is very rare. Similar permanent damage may occur when the cord repeatedly chafes against a spondylotic ridge in the canal during move-

ments of the spinal column. Alternatively the spinal cord may be compressed by a mass of disc tissue which has been slowly protruded into the vertebral canal. In such cases, careful removal of the protrusion will bring about a marked reduction in the functional deficit. In the present case the improvement following operation is evidence of the latter mechanism but microscopy of the cord at the level of the former disc protrusion showed permanent damage in the form of a collagenous plaque extending almost half the width of the cord, the most seriously affected part being the left lateral column. This damage must have been due to injury of the cord caused by the firm calcified disc tissue. It is quite probable that all the damage to the long tracts of

the cord in this case were due to the disc protrusion, but it must be noted that demyelination of the posterior columns and of the



FIG. 4.—The cerebellar cortex showing complete absence of Purkinje cells. This section has been impregnated with silver which stains the axons impinging on the Purkinje cells. When the Purkinje cells disappear these are seen as "empty baskets". Silver and luxol fast blue. x 250.

spino-thalamic tracts is also typical of carcinomatous neuropathy where it is associated with a marked destruction of posterior root ganglion cells such as was found in this patient. Two widely different conditions have here contributed to a single histological picture.

The second phase of the history, following a period of recovery, is undoubtedly that of an unusually florid and rapidly fatal carcinomatous encephalomyeloneuropathy (nine weeks from onset to death). The symptomatology is typical and is accounted for by the characteristic morbid-anatomical findings. The sensory and motor symptoms are explained by the damage to the posterior root ganglia and the anterior horn cells respectively. The bulbar paresis was clearly due to the changes seen in the pons and medulla and the loss of Purkinje cells explains the cerebellar ataxia. The temporal lobe changes, by interfering with the mechanism of recall, are probably the basis of the dementia observed in this patient and others. It is impossible to think or talk sense if the previous word or thought cannot be remembered!

The c.s.f. findings are more open to doubt since Myodil was left in the theca after myelography and it is said that this alone can cause a raised c.s.f. protein and cell count. No adequate explanation was found for the meningeal signs which were of much greater severity than would be warranted by the mild meningeal reaction seen in some of the sections.

This patient's illness is unusual since it combines all the main features of carcinomatous encephalomyeloneuropathy in a single case. In view of the recent discovery of anti-brain antibodies in a small proportion of these cases it seems reasonable to postulate that this patient rapidly produced large quantities of antibody to his tumour (thus accounting for its remarkably small size and unusual histological appearance), but that these same antibodies then reacted with an antigen of similar nature occurring in his central nervous system with a rapidly fatal destruction of tissue.

Summary

A florid and rapidly fatal case of carcinomatous encephalomyeloneuropathy is described, the causative tumour being a minute oat-cell carcinoma of the bronchus. Lesions in the temporal cortex are described which may well account for the dementia often seen in such cases.

My thanks are due to Mr. J. E. A. O'Connell for permission to describe this case and for much help and encouragement in the preparation of this report,



FIG. 5.—An area of gliosis from the hippocampus. Phosphotungstic acid and hematoxylin. x 300.

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REFERENCES

1. CROFT, P. B., WILKINSON, M. (1963): *Lancet*, **I**, 184.
2. DENNY-BROWN, D. (1948): *J. Neurol. Neurosurg. Psychiat.*, **II**, 73.
3. KENDALL, M. B. (1939): *Proc. Roy. Soc. Med.*, **32**, 874.
4. PARKES WEBER, F., and HILL, T. R. (1933-34): *J. Neurol. Psychopath.*, **14**, 57.
5. LENNOX, B., and PRITCHARD, S. (1950): *Quart. J. Med.*, **43**, 97.
6. HENSON, R. A., RUSSEL, D. S., and WILKINSON, M. (1954): *Brain*, **77**, 82.
7. HEATHFIELD, K. W., and WILLIAMS, J. R. B. (1954): *Brain*, **77**, 122.
8. BROUWER, B., and BIEMOND, A. (1938): *J. Belge neurol. psychiat.*, **38**, 691.
9. BROUWER, B., and SCHLESINGER, F. G. (1947): *Proc. R. Acad. Sci. Amst. (Proc. kon. nederl. akad. wet.)*, **50**, 1329.
10. BRAIN, W. R., DANIEL, P. M., and GREENFIELD, J. G. (1951): *J. Neurol. Neurosurg. Psychiat.*, **14**, 59.
11. ALDREN TURNER, J. W. (1959): *Brit. J. Clin. Pract.*, **13**, 499.
12. JEWESBURY, E. C. O. (1959): *Proc. Roy. Soc. Med.*, **52**, 479.
13. BORUCHOW, I. B. et al. (1962): *Arch. Int. Med.*, **110**, 461.
14. BRAIN, W. R. (1963): *Lancet*, **i**, 179.
15. WILKINSON, P. C. (1964): *Lancet*, **i**, 1301.
16. SWAN, C. H. J., and WHARTON, B. A. (1963): *Lancet*, **2**, 383.

RECENT PAPERS BY BART'S MEN

- *Andrews, Sir Christopher H. The complex epidemiology of respiratory virus infections. *Science*, 146, Dec. 4, 1964, pp. 1274-7.
- Birt, R. C., and Boulton, T. B. Post-operative jaundice; a case history. *Anaesthesia*, 20, Jan., 1965, pp. 79-85.
- Blunt, M. J., and others. Gila-nerve fibre relationships in mammalian optic nerve. *J. Anat.*, 99, 1965, pp. 1-11.
- Borrie, Peter. Angiomatosis. *Proc. roy. Soc. Med.*, 57, Nov., 1964, pp. 1093-1094.
- , Cicatricial pemphigoid. *Proc. roy. Soc. Med.*, 57, Oct., 1964, p. 890.
- Boulton, T. B. see Birt, R. C., and —.
- Bourne, Geoffrey. Some cardiological problems of life assurance. *Practitioner*, 194, Feb., 1965, pp. 240-3.
- *Brooke, Bryan, N., (and Sampson, Phillida A.). An indication for surgery in acute ulcerative colitis. *Brit. med. J.*, 2, Dec. 12, 1964, pp. 1272-1273.
- *Brown, John R., (and Jarvis, Anita A.). The strontium 90 content of Canadian tobacco samples. *Med. Serv. J. Canada*, 20, July-Aug., 1964, pp. 613-615.
- , Environmental aspects of fatigue. *Appl. Therapeutics*, 6, Nov., 1964, pp. 905-910.
- , (and Jarvis, A.) Radiation protection in Canada; Part 5. Radiobiologic and radiological health research in Canada. *Canad. med. Ass. J.*, 91, 1964, pp. 1260-1265.
- Buckler, J. M. H. see Robinson, A., and —.
- Butler, H. The spiral elastic arteries of the endometrium. *J. Anat.*, 99, 1965, p. 201.
- *Cairns, J. D., (and McKee, J.) Single umbilical artery: a prospective study of 2,000 consecutive deliveries. *Canad. med. Ass. J.*, 91, Nov. 14, 1964, pp. 1071-1073.
- *Canti, G. see Muir, G. G., and others.
- Capps, F. C. W., (and others) Carotid body tumours and their surgical management. *Proc. roy. Soc. Med.*, 57, Oct., 1964, pp. 951-956.
- , Larynx. In: Abercrombie, G. F., and McConaghey, R. M. S., eds. *The encyclopaedia of general practice*, 1964, pp. 508-523.
- Carter, T. R. G., see Garnham, J. R., and —.
- *Casson, F. R. C. The case of the human pin-cushion and other stories. *Family Doctor*, Dec., 1964, pp. 728-9.
- , The lost loves of Lady Luck. *Med. News*, Jan. 29, 1965, p. 11.
- , The psychology of astrology. *Family Doctor*, March, 1965.
- Cave, A. J. E. Cranial epiphytes in mammals. *Nature*, 204, Nov. 28, 1964, pp. 838-839.
- , (and Steel, F. L. D.) Craniometric sex determination in the colobus skull. *Proc. Zool. Soc. London*, 143, Nov., 1964, pp. 503-511.
- , The processus glandis in the rhino-cerotidea. *Proc. Zool. Soc. London*, 143, Dec., 1964, pp. 569-586.
- *Chamberlain, D. A. see Honey, Michael, and others.
- Cochrane, R. G. Hardly in the thoughts of a physician. *Med. News*, Nov. 27, 1964, p. 14.
- Cornell, C. E. Human reactions to disease—a simple example. *Nurs. Times*, Dec. 18, 1964, p. 1683.
- Cunningham, G. J., (and others). Carcinogenic action of motor engine oil additives. *Brit. J. Cancer*, 18, Sept., 1964, pp. 503-507.
- *Darmady, E. M. The changing pattern of pathology. *J. clin. Path.*, 17, 1964, pp. 477-481.
- , (and others). The proximal convoluted tubule in the renal handling of water. *Lancet*, 2, Dec. 12, 1964, pp. 1254-1257.
- , (and others). The cleaning of instruments and syringes. *J. clin. Path.*, 18, 1965, pp. 6-12.
- *Dobree, J. H. Proliferative diabetic retinopathy. Evolution of the retinal lesions. *Brit. J. Ophthalm.*, 48, 1964, p. 637.
- *Dowie, L. N. A short review of sarcoidosis with a report of three cases with involvement of the nasal mucosa. *J. Laryng.*, 78, Oct., 1964, pp. 931-936.
- *Du Boulay, G. H., and Monson, E. M. Telecine technique applied to neuroradiology. *Brit. J. Radiol.*, 37, 1964, pp. 814-818.
- , see also Jackson, D. C., and —.
- , see also Fry, Kelsey, I., and —.
- *Fairley, G. H., and others. Osteosclerosis in myelomatosis. *Brit. J. Radiol.*, 37, Nov., 1964, pp. 852-855.
- , see Heath, R. B., and others.
- , see Malpas, J. S., and —.
- Fletcher, C. M. The problem of observer in medical diagnosis with special reference to chest diseases. *Method. Inform. Med.*, 3, 1964, pp. 98-103.
- , (and others). An Anglo-American comparison of the prevalence of bronchitis. *Brit. med J.*, Dec. 12, 1964, pp. 1487-1491.
- , (and others). Measurement of sputum volume in factory and office workers. *Brit. med J.*, Jan. 30, 1965, pp. 291-293.
- Franklin, A. W. Paediatrics 1984. *Lancet*, Jan. 16, 1965, pp. 117-119.
- *Fry, Kelsey, I. Some observations on the sella in old age and arterial hypertension. *Brit. J. Radiol.*, 38, Jan., 1965, pp. 16-22.
- Garnham, J. R., and Carter, T. R. G. Mechanical intestinal obstruction in a young adult male with mucoviscidosis. *Gut*, 5, 1964, pp. 256-259.
- Garrod, L. P. The toxicity of antibiotics. *Med. J. Aust.*, Dec. 12, 1964, pp. 947-950.
- , Sources and hazards to man of antibiotics in foods. *Proc. roy. Soc. Med.*, 57, Nov., 1964, pp. 1087-88.
- Glenister, T. W. On the origin of mesenchyme in the rabbit blastocyst wall. *J. Anat.*, 99, 1965, p. 203.
- *Heath, R. B., and others. Production of antibodies against viruses in leukemia and related diseases. *Brit. J. Haemat.*, 10, 1964, pp. 365-370.
- , see also Stark, J. E., and others.
- *Hibbard, Bryan, M. (and Hibbard, Elizabeth, D.). Abruptio placentae—is it accidental? *Nursing Mirror*, 119, Nov. 27, 1964, pp. 4-6.
- *Honey, Michael, and others. The effect of beta-sympathetic blockade on arterial oxygen saturation in Fallo's tetralogy. *Circulation*, 30, Oct., 1964, pp. 501-510.
- Recent Papers by Bart's Men
- *Howard, Jane, see Honey, Michael, and others.

- Iuckstep, R. L. The diagnosis and treatment of enteric fever. *Current Med. and Drugs*, 5, Feb., 1965, pp. 19-35.
- *Hunt, Alan H. Résultats des anastomoses pour obstruction portale intrahepatique avec un recul de 5 ans. *Rev. int. Hépat.*, 14, 1964, pp. 281-285.
- Jackson, D. C., and Du Boulay, G. H. Traumatic arteriovenous aneurysm of the middle meningeal artery. *Brit. J. Radiol.*, 37, Oct., 1964, pp. 788-789.
- , and others. An introduction to lymphangiography. *Clin. Radiol.*, 15, Oct., 1964, pp. 341-346.
- , see also Fairley, G. H., and others.
- *Jones, Arthur. Transient radiation myelopathy. *Brit. J. Radiol.*, 37, Oct., 1964, pp. 727-744.
- Jones, F. Avery (and others). The gastric mucosa in radiologically negative acute gastrointestinal bleeding. *Gut*, 5, Dec., 1964, pp. 550-552.
- , (and others). Prednisone as maintenance treatment for ulcerative colitis in remission. *Lancet*, Jan. 23, 1965, pp. 188-189.
- , see also Misiewicz, J. J. (and others).
- *Keynes, Sir Geoffrey. Myasthenia gravis. In: Abercrombie, G. F., and McConaghey, R. M. S., eds. *The encyclopaedia of general practice*, 1964, pp. 133-136.
- *Keynes, W. M. Richter's and Litre's hernias. In: Nyhus, L. M., and Harkins, H. N., eds. *Hernia*, 1964, Ch. 16, pp. 233-238.
- , Supravascular hernia. *ibid.*, Ch. 41, pp. 625-636.
- , (and Care, A. D.) The role of parathyroid hormones in the absorption of calcium and magnesium from the small intestine. *Proc. roy. Soc. Med.*, 57, Sept., 1964, pp. 867-868.
- *Lambley, D. G., (and Welford, B.) Closed catheter drainage after retropubic prostatectomy. *Brit. J. Urol.*, 36, Dec., 1964.
- Lawther, P. J. The answer must be a compromise. *Med. News*, Jan. 15, 1965, p. 1.
- *Lehmann, H., (and others). Hereditary Heinz-body anaemia, thrombocytopenia, and haemoglobinopathy (Hb Köln) in a Glasgow family. *Brit. med. J.*, 2, Oct. 31, 1964, pp. 1099-1103.
- , and others. A new haemoglobin Ja Oxford found during a survey of an English population. *Nature*, 204, Oct. 17, 1964, pp. 269-270.
- , and others. Blood groups of human red cells after two years storage in liquid nitrogen. *Transfusion*, 4, Sept.-Oct., 1964.
- *Lofts, Brian, (and Mainardi, D.) Antigeni eritrocitari e gonadi di un ibrido naturale. *Revista Italiana di Orniologia*, 33, 1963, 5 pp.
- , and others. The experimental demonstration of premigration activity in the absence of fat deposition in birds. *Ibis*, 105, 1963, pp. 99-105.
- *McCull, Ian, (and others). Juvenile polyposis coli. *Proc. roy. Soc. Med.*, 57, Oct., 1964, pp. 896-897.
- McDonald, P., see Fairley, G. H., and others.
- *MacDougall, Ian, P. M. The cancer risk in ulcerative colitis. *Lancet*, Sept. 22, 1964, pp. 655-658.
- , Clinical identification of those cases of ulcerative colitis most likely to develop cancer of the bowel. *Dis. Colon Rect.*, 7, Sept./Oct., 1964, pp. 447-450.
- *MacKenna, R. M. B. Dermatological investigation. *Research Reviews*, 1963-64, pp. 52-56.
- *Malpas, J. S., and Failey, G. M. Changes in serum alpha 2 globulins in reticuloses. *J. clin. Path.*, 17, Nov., 1964, pp. 651-654.
- , see also Heath, R. B., and others.
- Marshall, A. J., see Lofts, B., and others.
- *Millard, F. J. C., (and Reid, Lynne). Correlation between radiological diagnosis and structural lung changes in emphysema. *Clin. Radiol.*, 15, Oct., 1964, pp. 307-311.
- , (and others). The radiographic appearance of the chest in persons of advanced age. *Brit. J. Radiol.*, 37, Oct., 1964, pp. 769-774.
- Misiewicz, J. J., (and others). Controlled trial of sulphasalazine maintenance therapy for ulcerative colitis. *Lancet*, Jan. 23, 1965, pp. 185-188.
- , (and others). Prednisone as maintenance treatment for ulcerative colitis in remission. *Lancet*, I, Jan. 23, 1965, pp. 188-189.
- , (and others). Comparison of acetarsol and prednisolone 21-phosphate suppositories in the treatment of idiopathic proctitis. *Lancet*, Jan. 30, 1965, pp. 238-9.
- Monson, E. M., see Du Boulay, G. H., and —.
- Morgan, C. Naunton. Carcinoma of the rectum Bradshaw lecture. *Ann. Roy. Coll. Surg.*, 36, 1965, pp. 72-97.
- Muir, G. G., and others. Use of 6-phosphogluconate dehydrogenase as a screen test for cervical carcinoma in normal women. *Brit. med J.*, Dec. 19, 1964, pp. 1563-1565.
- Nash, D. F. Ellison. Spinal defects in the newborn—the midwife's contribution to survival and degree of recovery. *Nursing Mirror*, Feb. 19, 1965, pp. 10-12.
- *Noble, M. I. M. (and others). Effect of changes in heart rates on left ventricular performance in the unanesthetized dog. *Proc. Physiol. Soc.*, 24-25, July 1964, *J. Physiol.*, 175, 62P-63P.
- O'Connell, J. E. A. The place of surgery in intracranial metastatic malignant disease. *Proc. roy. Soc. Med.*, 57, Dec., 1964, pp. 1159-65.
- *O'Grady, F. Morphology of cortisone-induced changes in mouse candidiasis. *Brit. J. exper. Path.*, 45, Dec. 1964.
- Oswald, N. C. Antibiotics and chronic bronchitis. *Practitioner*, 193, Dec., 1964, pp. 735-739.
- Perkins, E. S. Glaucoma screening from a public health clinic. *Brit. med. J.*, 1965, 1, pp. 417-419.
- Robinson, A., and Buckler, J. M. H. Emergency hypothermia in meningococcal meningitis. *Lancet*, Jan. 9, 1965, pp. 81-83.
- Rodgers, Harold, (and others). Extrahepatic portal-venous obstruction. *Brit. J. Surg.*, 52, Feb., 1965, pp. 129-139.
- Rothnie, N. G., see Jackson, D. C., and others.
- Roxburgh, R. A. Duplication of the small intestine associated with a bleeding stomach ulcer in an infant. *Proc. roy. Soc. Med.*, 57, Dec., 1964, pp. 1130-1131.
- Scott, A. The biochemical behaviour of radioactive sulphur in normal and psoriatic epidermis. *Brit. J. Derm.*, 76, Dec., 1964, pp. 537-543.
- *Scott, Philip. G. Report on cases of conductive deafness associated with head injury. *J. Laryng.*, 78, Dec., 1964, pp. 1119-1122.
- Simon, G., (and others). The radiographic appearances of the chest in persons of advanced age. *Brit. J. Radiol.*, 37, 1964, pp. 769-774.
- , Radiology in emphysema. *Clin. Radiol.*, 15, Oct., 1964, pp. 293-306.
- , (and Reid, Lynne). The role of alveolar hypoplasia in some types of emphysema. *Brit. J. Dis. Chest*, 58, 1964, pp. 158-168.
- Smith, Barbara. Histochemical changes in muscle necrosis and regeneration. *J. Path. & Bact.*, 89, Jan., 1965, pp. 139-143.

Spector, W. G., (and Hurley, J. V.) A topographical study of increased vascular permeability in acute turpentine-induced pleurisy. *J. Path & Bact.*, 89, Jan., 1965, pp. 245-254.

Stark, J. E., and others. A study of the antibodies against parainfluenza viruses in children's sera. *Arch. ges. Virusforsch.*, 14, 1964, pp. 160-168.

*Theobald, G. W. Induction of labour. In, Kellar, R. J., ed. *Modern trends in obstetrics*, 3, Ch. 6, pp. 87-103.

*—, The synthesis of divergent observations concerning oxytocin. In, *Oxytocin: Proceedings of an International Symposium held in Montevideo, 1959*, Edited by R. Caldeyro-Barcia and H. Heller. Oxford, 1961, pp. 212-228.

Thorne, Napier. Nail varnish as a cause of dermatitis. *Nursing Mirror*, Dec. 18, 1964, pp. 6-7.

—, and Fox, D. A trial of providone iodine ointment in the treatment of leg ulcers. *Practitioner*, 194, Feb., 1965, pp. 250-253.

—, and Fox, D. Trial of S-carboxy-methyl cysteine ('Thiodine') ointment in the treatment of leg ulcers. *Brit. J. clin. Pract.*, 18, Feb., 1964, pp. 75-79.

—, Cosmetics and the dermatologist. *Soaps. Brit. J. clin. Pract.*, 19, Feb., 1965, pp. 111-114.

Thrower, W. R. Tight squeeze in a tight little island. *Med. News*, Dec. 11, 1964, p. 14.

*Todd, Ian. Causes of megabowel. *Lond. Clin. Med. J.*, 6, Jan., 1965, pp. 43-48.

*Trapnell, D. H. Septal lines in pneumoconiosis. *Brit. J. Radiol.*, 37, Nev., 1964, pp. 805-810.

*—, Septal lines in sacoidosis. *Brit. J. Radiol.*, 37, 1964, pp. 811-813.

—, Man's understanding of the lymphatics, with particular reference to the lung. *Proc. roy. Soc. Med.*, 58, Jan., 1965, pp. 37-40.

*Turner, Paul, (and Smart, J. V.). Modification of visual critical flicker fusion frequency by intermittent auditory stimuli. *Nature*, 203, Sept, 26, 1964, p. 1387.

*Watts, R. W. E., (and others). Quantitative aspects of ascorbic acid metabolism in man. *J. biol. Chem.*, 239, Sept., 1964, pp. 2975-2980.

Whittle, R. J. M., see Jackson, D. C., and others.

Wickham, J. E. A., (and Sharma, G. P.). Endogenous ammonia formation in experimental renal ischaemia. *Lancet*, Jan. 23, 1965, pp. 195-198.

Williams, D., see Muir, G. G., and others.

Willoughby, D. A., (and Walters, M. M. I.). The effect of tissue extracts on vascular permeability and leucocyte emigration. *J. Path. & Bact.*, 89, Jan., 1965, pp. 255-262.

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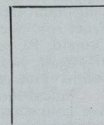
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CLINICAL AND RESEARCH SUPPLEMENT

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Supplement No. 11

Vol. LXIX, July, 1965

AN ANALYSIS OF
**584 CASES OF PORTAL OBSTRUCTION
SEEN BETWEEN 1947-1963, WITH PARTICULAR
REFERENCE TO SURGICAL TREATMENT**

by A. H. Hunt

Portal hypertension is a condition of great complexity on account of the many variables in the underlying pathology and clinical presentation. It is difficult to say if we are yet in a position to give definite advice on the different methods of treatment even of its most devastating complication, hæmorrhage. With some hesitation, therefore, I submit for publication our own figures for this condition. They were prepared in answer to a questionnaire drawn up by the organizers of a recent meeting of the French Association of Surgery and they have been incorporated in the published reports of the discussions that took place at the meeting held in Paris at the end of September and the beginning of October 1964 (66^e Congrès Français de Chirurgie). Many surgeons interested in the condition of portal hypertension have, however, asked me if I

would publish my own figures separately, and it is in response to these requests that I submit them for publication in the St. Bartholomew's Hospital Journal. They are, in effect, the framework for future clinical studies.

Every case of portal obstruction that I saw personally between 1947 and the end of 1963 is included in this report, whether an operation was indicated or not. Most were referred on account of variceal hæmorrhage, either during the course of a bleed or having survived at least one hæmorrhage. Some were discovered incidentally at operation for other conditions, such as gall stones and peptic ulcer. Many had ascites, often they had anæmia, and some had jaundice. In many the condition of the liver was so serious that operation was out of the question when they were first seen. If a patient responded to medical treatment and an

indication for operative treatment was present, he would have his operation in due course. If he failed to respond to treatment, continued deterioration would automatically exclude him from operation. Sometimes patients succumbed because of delay in accepting operative treatment, either because their own general practitioners or physicians recommended, often with good reason, a further trial of medical treatment, or because they themselves deferred what they knew to be a formidable operation. Regrettably, a few patients have died of hæmorrhage while awaiting definitive surgery, having consented to have the operation done. A certain number died of terminal variceal hæmorrhage due to portal obstruction from invasive carcinoma of the stomach, pancreas, etc. It will readily be appreciated, therefore, why only 245 shunt operations have been done in 501 cases of cirrhosis.

The Causes of Portal Obstruction in 584 Cases seen between 1947-1963.

Cirrhosis hepatis	501	85.79%
Posthepatic obstruction (Budd-Chiari)	8	1.37%
Constrictive pericarditis	2	0.34%
Prehepatic obstruction	73	12.50%
1. Congenital (including neonatal umbilical sepsis) 43.		
2. Acquired (portal pylephlebitis, obstruction by carcinoma, etc. and thrombosis) 30.		

TABLE 1.

An Earlier Analysis of 479 Cases of Intrahepatic Portal Obstruction.

Cirrhosis	Per cent
Idiopathic (cryptogenic)	201 42.0
Posthepatitis	83 17.3
Alcoholic	81 16.9
Nutritional	28 5.8
Biliary, Primary	21 4.4
Secondary	18 3.8
"Toxipathic"	20 4.2
Syphilitic	10 2.1
Cardiac	8 1.7
Toxaemia of pregnancy	2 0.4
Amyloidosis, sarcoidosis, lupus erythematosus, scleroderma and lipoidosis	7 1.4
	479 100.0

TABLE 2.

"Toxipathic" Cirrhosis.

Hæmochromatosis (Fe)	7
Arsenical (As)	7
Gold (Au)	1
Gold and antimony (Sb)	1
Wilson's disease (Cu)	2
Carbon tetrachloride	2
	20
	—

TABLE 2A.

Comment on the causes of portal hypertension

Table 1 gives the site of the obstruction. *Intrahepatic obstruction* (cirrhosis) accounts for the majority of the cases. *Posthepatic obstruction*, due to thrombosis of the hepatic veins with or without vena caval involvement (the Budd-Chiari syndrome), is rare. There were only eight cases of this condition, four due to malignant disease. There were also two cases of constrictive pericarditis. *Extrahepatic* or *prehepatic obstruction* accounts for 12.5%. These latter cases are divided into (1) the congenital type, which comprises thrombosis extending from umbilical sepsis during the neonatal period (Thompson and Sherlock, 1964) and "congenital" obliteration of the portal vein, an extension of the process by which the ductus venosus and the umbilical vein are obliterated at birth (Thompson, 1940); and (2) the acquired, in which the obstruction follows portal pylephlebitis or is due to compression or invasion by carcinoma or other causes.

Tables 2 and 2A set out a slightly earlier analysis of the causes of intrahepatic portal obstruction, as encountered in this series. Nearly half the cirrhotics (42%) have come in the idiopathic or cryptogenic group. In the others the most probable aetiological factor in each case has been set down. There have been many confusing cases in which a number of causative factors have been present, such as the man who had infective hepatitis as a child, syphilis and antisyphilitic treatment as an adult, and who had consumed more than an average quantity of alcohol. In such cases the assessment of the causative factor can be no more than intelligent guess-work, supported by the histological appearances. The incidence of nutritional cirrhosis is high in this series because it includes patients who were referred to me on their return from prisoner-of-war camps, in the Far East and on the continent of Europe. In these cases also many causative factors were present. The syphilitic cases appear improbably high, yet 9 out of the 10 had typical hepar lobatum with the diagnosis proved by microscopic section; and, of course, all had positive serological tests. The "toxipathic" group is set out independently in Table 2A. That minute quantities of certain heavy metals in the liver can undoubtedly give rise to a cirrhotic process has encouraged us to pursue this line further (Hunt, Parr, Taylor and Trott, 1963).

CIRRHOSIS

Cirrhosis is the commonest and most dangerous liver disease that we have to treat. The first question that we, as surgeons, must answer is whether decompressive shunt operations are worth doing. This aspect of the problem is, therefore, considered first.

Variceal hæmorrhage is the great menace. It appears from the articles of Ratnoff and Patek (1942) and Garceau and Chalmers (1963) that the survival rate five years from the first hæmorrhage is under 10% for cirrhotic patients who are not operated on. Our own overall figure, going back to 1947, is 48% 5-year survival rate from the time of the shunt operation. If this is a truly favourable comparison, and we have no means of telling whether the successive series are strictly comparable, then the full extent of the applicability of surgery should be explored. The risk of morbidity and mortality to good risk patients is the main deterrent to extending the scope of surgery. It will be seen from this series that there has been no death following operation in the mildly cirrhotic group, nor has the morbidity of the operation in this group been of much significance. It is my considered opinion, therefore, that the scope of surgery should be extended, even to the prevention of hæmorrhage (see Prophylactic Shunt).

Operative Mortality

- A. *Totals.*
245 operations, 25 post-operative deaths, 10.2% of operations;
in 242 patients, 25 post-operative deaths, 10.3% of patients.
Porta-caval anastomoses 203, 23 deaths, 11.3%.
Spleno-renal " 42, 2 " 4.7%.
- B. *Operative mortality related to the severity* of the cirrhosis.*
Mild (good risk) patients 34 0 deaths 0%
Moderate 152 10 " 7.6%
Severe (poor risk) 59 15 " 25.4%
- C. *Operative mortality related to experience.* (moderate and severe cirrhotics only)
The 6½ years 1947-1953 40 11 deaths 27.5%
The 5 years 1954-1958 71 11 deaths 15.5%
The 5 years 1959-1963 100 3 deaths 3%
- D. *Causes of death in the post-operative period.*
5 from hæmorrhage
— 1 from the spleno-renal anastomosis itself.
— 3 retroperitoneal hæmorrhage, associated with heparin administration (early cases).
— 1 intraperitoneal, possibly fibrinolysis, possibly from the liver biopsy.
16 from liver failure, often associated with pulmonary infection.
1 from uræmia,
1 from pericarditis,
1 from cardiac arrest, 3rd day,
1 from heat stroke.
—
25
—

TABLE 4.

A. PORTAL-SYSTEMIC VENOUS ANASTOMOSES

Porta-Caval Anastomoses, 203.

End-to-side 200
"In continuity" 3

Spleno-Renal Anastomoses, 42.

End-to-side whenever possible.

245

Technique of all anastomoses—continuous everting suture.

TABLE 3.

*The mild cirrhotic is the patient whose liver is fully compensated. In the absence of stigmata of cirrhosis, the diagnosis may present considerable difficulties. They often present with anæmia. The moderate cirrhotic is the patient with obvious cirrhosis, who is not in a state of liver failure. He usually does not have ascites and is probably not jaundiced. The serum albumin (Biuret method) is above 3.2 gm.%. The severe (poor risk) cirrhotic is, until properly treated, in a state of liver failure. He is ill, ascitic, sometimes jaundiced and usually with a serum albumin of less than 3.2 gm.%. Occasionally associated disease puts him into the severely ill category.

The most evident conclusion from Table 4 is that the operative mortality is related to the severity of the cirrhosis. Experience also is of vital importance (4c). It must be admitted, however, that between 1947 and about 1953

our methods of selection and preparation did not compare with those that we have adopted since that date. The difference lies largely in our improved methods of preparation for operation, utilizing new methods of medical treatment as they are introduced. The better understanding of hepatic coma and the improved management of ascites and oedema has helped enormously. There is still, however, little "selection" practised. Age, unless accompanied by considerable infirmity, is not considered a contra-indication. Any case that has bled is considered a candidate for a shunt operation and only excluded on account of a poor liver function that does not respond to medical treatment. The 3% operative mortality obtained during the last four years, however, has not only been the result of better medical treatment, but also of greater personal experience with the technique of the operation, though my methods have not changed. It has not been due to a stricter selection of patients from a larger number of cases (Hunt, 1958).

In 1949, an attempt was made in four patients in the terminal stages of liver failure to revascularise the liver by combining porta-caval anastomosis with arterialization of the hepatic end of the portal vein. All four died during the postoperative phase (Hunt, 1952).

Emergency Porta-caval Anastomoses (Up to the end of 1963).

7 Operations:

- 2 postoperative deaths,
- 2 late deaths, liver failure,
- 1 late death, intercurrent disease,
- 2 alive and well.

(These figures are included in the total figures).

TABLE 5.

Emergency shunt operations are usually not done unless the case is considered to be of good risk, or unless the haemorrhage takes place in hospital, when a patient is prepared for a shunt and when the haemorrhage can be controlled immediately. The mortality of shunt operations done during a haemorrhage cannot be compared with that of operations done after careful preparation. The risks are undoubtedly greater. One of the two operative deaths in this small series was due to an error of selection, the other to an error of timing. (An alternative method of stopping persistent haemorrhage, such as the Boerema-Crile operation (TABLE 9), is resorted to in all other cases where haemorrhage is not controlled by non-operative means).

Long-term Results in Cirrhotic Patients.

Patients Surviving 3 Years After Shunt Operations (done before the end of 1960).

Porta-caval anastomoses	110 out of 184—60%
Spleno-renal anastomoses,	85 out of 144—59%
25 out of 40—62.5%	
Related to severity of disease:	
Mild, 30 out of 31	97%
Moderate and severe, 80 out of 153	52%

Patients Surviving 5 Years After Shunt Operations (done before the end of 1958).

75 out of 155 patients	48%
------------------------	-----

TABLE 6.

Comment

The long-term results are good compared with other series in which no operation was carried out (Garceau and Chalmers, 1963). It must be re-emphasised that no surgical procedure can of itself arrest a progressive disease of the liver. Although the 3-year survival rate is 60%, the "success rate" is higher than that. As the follow-up is continued, there will be others dying of their disease at an increasing interval of time following operation (TABLE 6). Many of the patients who do not survive three years are operative successes, since they live useful and productive lives for much of that time. The operation may be considered a success if there has been no further variceal haemorrhage and if it is judged to have been worth while, in that the patient has returned to normal life and work. Judged by that standard, the "success rate" has been 87% for the mild, 83% for the moderate and 62% for the severely cirrhotic patients. That the assessment is strict may be seen from the fact that in the group of mild cirrhotics the 3-year survival rate is 97%, although the "success rate" is assessed at only 87%. The difference is due to those that had variceal haemorrhage due to thrombosis of the shunt.

Late Complications

(i) Portal-systemic encephalopathy and episodic stupor.

Recurrent episodic stupor in those patients who survive the postoperative phase usually presages liver failure and ultimate death. This occurred in 25.5% of the survivors of porta-caval anastomosis, 27.5% of spleno-renal. In the circumstances the stupor is regarded as inevitable. On the other hand, in a small group of patients (6% porta-caval, 5% spleno-renal) the episode of stupor is transient and

insignificant if managed properly. In another group (8% porta-caval) the attacks are recurrent and give rise to great anxiety and incapacitation. They may recur for a year or two and then pass off altogether with full recovery, or they may persist year after year, with psychological and other complications which make the patients had companions in any way of life and render them incapable of almost any work.

Late Complications (1947-1963 inclusive).

Porta-Caval Anastomosis 203 — 23 postoperative deaths.

Of the 180 survivors:

46 late deaths from liver failure	25.5%
(Average survival 2.8 years postoperatively)	
26 late deaths from intercurrent disease	14.3%
(Average survival 3.5 years)	
15 cases of recurrent episodic stupor	8.3%
11 cases of mild (inconsequential) episodic stupor	6.1%

Spleno-Renal Anastomosis 42 — 2 postoperative deaths.

Of the 40 survivors:

16 late deaths from liver failure, with or without a haemorrhage	40%
(Average survival 3.0 years postoperatively)	
11 had recurrent stupor preceding the advent of liver failure.	
7 late deaths from intercurrent disease	17%
(Average survival 6.6 years)	
2 cases of mild episodic stupor	5%

TABLE 7.

Deaths from intercurrent disease are frequent (14.3% porta-caval, 17% spleno-renal anastomosis). This is partly due to the increased incidence of certain diseases in association with cirrhosis, e.g. peptic ulcer, pancreatitis, cancer of the liver; partly to the inability of a cirrhotic patient to withstand other illnesses; and partly because of the number of elderly patients, in their seventh and eighth decades of life. Many of these cases had episodic stupor. Death from intercurrent disease is, therefore, often accelerated by the associated liver deficiency. If stupor develops it is contributory.

Encephalopathy and hepatic stupor can thus be interpreted and analysed under many headings—the inevitable, the transient, the incapacitating and the contributory. Altogether some 50% of the survivors of shunt operations will show it in one form or another. Yet it is only in the 8% who suffer from persistent, recurrent, incapacitating encephalopathy (in which the liver function remains reasonably good), that colonic exclusion (McDermott, Victor and

Warren Point, 1962) or ablation (Atkinson and Goligher, 1960) should be considered.

Ultimate death from liver failure is no contra-indication to doing an operation which will guard against haemorrhage and therefore prolong the active and useful life of a patient. The possibility of episodic stupor challenges us to discover its causes and work out its amelioration or even cure.

(ii) Haemorrhage

Causes of recurrent haemorrhage following shunt operations.

- (1) Thrombosis of anastomotic stoma with recurrence of varices
Porta-caval anastomosis, 9 out of 203 proven—4.4%
Spleno-renal anastomosis, 13 out of 42 proven—31%.
- (2) Peptic ulceration (see later).
- (3) Erosive gastritis and oesophagitis (particularly with alcoholic excess).
- (4) Regurgitant oesophagitis (especially after "interruption" operations).

TABLE 8.

Table 8 shows that the overall figure for thrombosis of porta-caval anastomosis is 9 out of 203 or 4.4%. In three of these the portal vein had been partially thrombosed at the time of the operation and thrombectomy had been necessary before the stoma could be constructed. Of the other six, two had abnormal hepatic arteries; one an abnormally small portal vein; one an abnormally fibrotic inferior vena cava (later developing into a Budd-Chiari syndrome); and two had satisfactory stomata, in which it was probable that the portal vein had been compressed between the caudate lobe of liver above and the pancreas below.

Thrombosis of the stoma is more common with spleno-renal anastomoses (13 out of 42). A fully everting suture technique has been used for all types of operation. Many of the late deaths from liver failure following spleno-renal anastomoses (40% of the survivors, as against 25.5% following porta-caval anastomosis) were precipitated or accelerated by recurrent haemorrhage due to thrombosis of the stoma. In two cases, a porta-caval anastomosis was done later. There are many technical reasons why the spleno-renal anastomosis is more likely to become obliterated—reversal of flow in the splenic vein, more delicate veins, a smaller stoma and a greater likelihood of kinking of the splenic vein near the anastomosis. But there is another reason which has so far received little attention, that is, relief of tem-

porary intrahepatic or extrahepatic obstruction. I have been able to prove this in a case of gummatous hepatitis with ascites, in whom the portal vein appeared to be partially thrombosed. The spleno-renal anastomosis, which produced immediate and complete relief of the ascites, later became obliterated. The liver condition had improved and the portal vein recanalised. Many of the porta-caval anastomoses that have clotted, have done so on account of a local anomaly or previous thrombosis. A satisfactorily constructed stoma usually does not constrict or thrombose.

Of the three anastomoses in-continuity done in 1949, one showed thrombosis of the hepatic end of the portal vein. This raises the question how many of the latero-lateral, in-continuity (Hunt, 1964b) and double-barrelled (McDermott, 1960) anastomoses show this hepatic end thrombosis?—to which an answer has not yet been given by the many protagonists of this more difficult operation. If it is a material figure, it is further evidence in favour of the end-to-side shunt. Intrahepatic thrombosis of the portal vein following termino-lateral anastomosis does not appear to be of significance, except in cases of Cruveilhier-Baumgarten syndrome when it extends throughout a large reservoir of blood and leads to prolonged pyrexia.

(iii) Icterus or jaundice

This is a common manifestation of progressive liver disease, e.g. in primary biliary cirrhosis, and presages ultimate liver failure. It is a frequent transient development following portal-systemic venous anastomoses, but may be no more than evidence of a temporary setback of liver function. It often clears completely. It is even possible for hepatic decompression by a shunt operation occasionally to lead to a reduction in the amount of retained bilirubin.

(iv) Oedema

Peripheral oedema, especially of the legs, is troublesome. The management of this condition is improving with the introduction of newer diuretics. It is usually not incapacitating except in the terminal phase of liver disease. Increased pressure within the inferior vena cava can contribute to it and may sometimes be due to compression or constriction of the inferior vena cava where it passes through the cirrhotic liver. When peripheral oedema is troublesome, in a patient with adequate liver function, an inferior vena cavagram is advisable.

(v) Paralysis

It is becoming increasingly evident that chronic hepatic disease may be associated with peculiar degeneration of nervous tissue such as demyelination, lenticular sclerosis, etc. In the present series there have been five cases of peripheral palsy, of whom three are alive, all indubitably associated with advanced cerebrospinal atherosclerosis; one died of cancer of the liver seven years after operation, and the other of a "disseminated sclerosis" four years after operation. Much of this follow-up information has, however, been obtained from remote hospitals. We have had no opportunity so far of making histological studies of the nervous system in cases of palsy. Two other cases exhibit astonishing athetoid movements, which began eight years after porta-caval anastomosis. Temporary weakness of hands, arms or legs is encountered in some patients. We have had two cases of Ekbohm's syndrome.

As an encouraging conclusion to a consideration of the unpleasant consequences of portal decompression, it should be noted that measurable improvement in liver function takes place in about one-third of the patients undergoing shunt operations. This is a considerable achievement and, in itself, provides ample compensation for the disappointments that are inevitable in the treatment of liver diseases.

B. "INTERRUPTION OPERATIONS" IN CASES OF CIRRHOSIS

There are circumstances where it is inadvisable or impossible to do an operation designed to decompress the portal tree. It is inadvisable in the patient whose variceal hæmorrhage is continuing in spite of medical treatment, and in whom liver failure is evident, precluding an emergency porta-caval anastomosis. An operation must be done to interrupt the flow of portal blood to the varices. Portal decompression will be impossible when there is no venous channel suitable for anastomosis, as shown by complete venographic demonstration of the whole portal tree.

(i) Sclerosis of varices by injection through an oesophagoscope (Crafoord and Frenckner).

This injection method is utilized when other more effective methods have failed, or when

they are contra-indicated by associated disease or by the extent and number of the hæmorrhages. It is, therefore, palliative and supportive. On two occasions it has been effective in stopping a hæmorrhage, as an emergency measure, but I have not, in such circumstances, found it easy or satisfactory.

(ii) Transthoracic oesophagotomy and ligation of varices (Boerema-Crile operation). (Boerema, 1949; Crile, 1953) (see also Hunt, 1964).

25 cases, 8 post-operative deaths, operative mortality	32%
<i>Causes of death</i>	
1 from recurrent hæmorrhage,	
6 from liver failure,	
1 from hyperkalemia.	
17 successful	68%
14 had subsequent porta-caval anastomosis (No post-operative death in this group.)	56%
8 died from liver failure at average of 2.4 years after porta-caval anastomosis,	
2 died from intercurrent disease, (one of nephritis at 2½ years, and one of sarcoma at 6 months.)	
4 alive and well at average of 4½ years.	
2 late deaths from carcinoma (stomach and pancreas),	
1 case being prepared for porta-caval anastomosis at the time of the analysis.	

TABLE 9.

The Boerema-Crile operation is the usual operation that has been done for acute hæmorrhage in cirrhotics who are in a bad condition as a result of persistent hæmorrhage which has not been brought under control by non-operative measures. Exceptions are the emergency porta-caval anastomoses in good risk cases (q.v.) and the occasional Transection, Resection or Injection of Varices. The Boerema-Crile operation, though not a small or easy operation, is considered the least traumatic of the effective procedures. It is a life-saving operation for a condition in which other methods have failed or are adjudged inapplicable. Admittedly a mortality of 32% is considerable; or should it be considered that a salvage rate of 68% is creditable, because these are the patients who will otherwise die of their hæmorrhage. I regard it as a temporary procedure and as the first step towards a shunt. Therefore, less is expected of it than of the more extensive "interruption" operations. Indeed, 14 of the 17 survivors have proceeded to porta-caval anastomosis and all survived the second stage. Four who have had a shunt, are alive and well (28.5%) at an average of 4½ years.

(iii) Proximal Gastric Transection (Tanner) (with or without splenectomy).

8 cases (5 done as emergencies)
1 post-operative death—20%.
5 bleeding recurred. Average interval 11 months.
2 died intercurrent disease,
1 died hæmorrhage,
2 subsequently had successful porta-caval anastomosis.
2 well, 9½ and 1½ years post-operatively. (Neither was an emergency.) 25% successful.

TABLE 10.

It is a more considerable procedure than the Boerema-Crile operation and is, therefore, more liable to be succeeded by deterioration in liver function, ascites, etc. Most of these patients were in a better condition than those undergoing the Boerema-Crile operation. Transection is intended to suppress hæmorrhage permanently, so it is assessed by a more exacting standard. Six out of eight were failures and the average interval before rebleeding occurred was only eleven months. Two of the five cases that bled again subsequently underwent porta-caval anastomosis and have survived the second stage.

Occasionally, when the portal vein is obliterated and intraperitoneal adhesions are so massively vascular that further dissection and resection is impracticable, it is the only possible definitive operation. This is a "negative" indication. Sometimes venogram X-rays show that diversion of blood to the oesophagus is restricted to certain channels and that by division of these channels and transection the flow can be interrupted effectively—a positive indication. The two successful cases represented these two types respectively.

(iv) Proximal Gastric Resection (Phemister and Humphreys, 1947).

5 cases (none done as an emergency).
3 late deaths from liver failure, average survival 6 months (poor risk patients).
2 survivors (mildly cirrhotic), 8½ and 1½ years.

TABLE 11.

This very major operation is not recommended in cirrhosis of any severity, although it is more effective than transection in stopping and preventing hæmorrhage. It should be utilised only in the good risk cirrhotic patients when a shunt is impossible. (It may be essential to do a partial resection in an emergency, as an extension of the Boerema-Crile operation to stop bleeding from gastric varices. (Vide infra.)

C. HEPATIC ARTERIAL LIGATURE

15 cases,	
9 post-operative deaths from liver failure, with or without hæmorrhage	60%
5 late deaths from liver failure, with or without hæmorrhage	33%
(2 survived 3 years or more, but with ascites.)	
1 survives 11½ years, with ascites.	

TABLE 12.

The indication for this operation (Rienhoff, 1951) has been intractable ascites in the advanced cirrhotic, who has not bled. In no case has this operation been entirely successful, though ascites was temporarily relieved in three cases. It is not now practised.

D. SPLENECTOMY ALONE

The effect of splenectomy is difficult to assess (see Extrahepatic Portal Obstruction). Removal of the spleen encourages portal vein thrombosis and may, therefore, make subsequent porta-caval anastomosis more difficult. It should not be encouraged, although it may be necessary in an attempt to relieve "hæmolytic" anæmia when it persists after porta-caval anastomosis. Very occasionally splenectomy has been done as a first stage to porta-caval anastomosis, when the degree of hypersplenism has been such as to preclude a more extensive operation.

E. PARTICULAR CIRCUMSTANCES

(i) Portal and splenic vein thrombosis (partial or complete) in cases of cirrhosis

56 out of 501	11.2%
Found at postmortem	6
Present at first operation	34
Following splenectomy	10
Following porta-caval anastomosis	6
	56

TABLE 13.

Splenectomy, venous stasis, and certain systemic diseases, such as leukemia and syphilis, are factors predisposing to thrombosis, which always makes the treatment of portal hypertension more difficult, the results less certain and further hæmorrhage and death more common. Only 15 of the 56 cases survive.

When its full extent has been demonstrated at operation, there are usually four possible operations to be considered by the surgeon:

- (a) When the spleen is present,
 1. Spleno-renal anastomosis.
 2. Thrombectomy and porta-caval anastomosis.
- (b) After splenectomy,
 1. Thrombectomy and porta-caval anastomosis.
 2. Superior mesenteric—inferior vena caval anastomosis.
 3. An Interruption operation (Transection is preferred to Resection in cirrhosis).

Thrombectomy is not easy. Recent thrombus, even when complete, can be removed and a good stoma constructed, but old thrombus can be curetted and dissected out only when occupying part of the vein. The operation of thrombectomy and porta-caval anastomosis has been done 13 times, with subsequent thrombosis of the anastomosis in 3 (23%). (See Table 8.)

Shunt operations in the presence of ascites.

47 porta-caval anastomoses,	
45 termino-lateral — 7 post-operative deaths.	
2 in-continuity — 1 post-operative death.	
11 spleno-renal anastomoses — 1 post-operative death.	
Total: 58 shunt operations, 9 post-operative deaths.	mortality 15.5%.

Causes of the 9 post-operative deaths.

Hæmorrhage (Heparin)	2
Heatstroke	1
Pericarditis	1
Pneumonia and liver failure	1
Liver failure	4
	9

(Four of these deaths occurred before the end of 1952, among the first 8 cases operated on; 5 post-operative deaths have occurred in the subsequent 50 patients.)

13 late deaths from liver failure, average survival 2.8 years.

11 late deaths from intercurrent disease, average survival 2.9 years.

Causes of late deaths from intercurrent disease.

Carcinoma (2 bronchus, 1 liver, 1 colon, 1 oesophagus)	5
Heart failure (coronary thrombosis)	1
Perforated duodenal ulcer	1
Peritonitis	1
Pyæmia	1
Pneumonia	1
Fractured femur	1

TABLE 14.

(ii) Portal hypertension complicated by ascites.

I have always considered intractable ascites, that persists after full medical treatment in the presence of reasonably good liver function, as an indication for operation. Patients who had ascites which has responded fully to medical treatment are not included in Table 14, but all who had a shunt operation in the presence of gross or material ascites are included. Even the presence of jaundice did not preclude operation, especially if it was obstructive in nature. Rather should such jaundice be considered as a valid cause for exploration. Eight cases were operated on for ascites between 1948 and 1952, when the preparation was not so efficient as today, and most had advanced cirrhosis. These suffered the heaviest mortality rate, four dying of the operation, 50%.

The indications for operation were:

Ascites alone	16
(11 with varices, see also Prophylactic Shunt)	
Hæmorrhage and ascites	30
(all with varices)	
Jaundice, hæmorrhage and ascites	8
(all with varices)	
Jaundice and ascites	4
(3 with varices)	
	58
	—

These patients were all ill and the significance of hypersplenism in producing anæmia was difficult to assess.

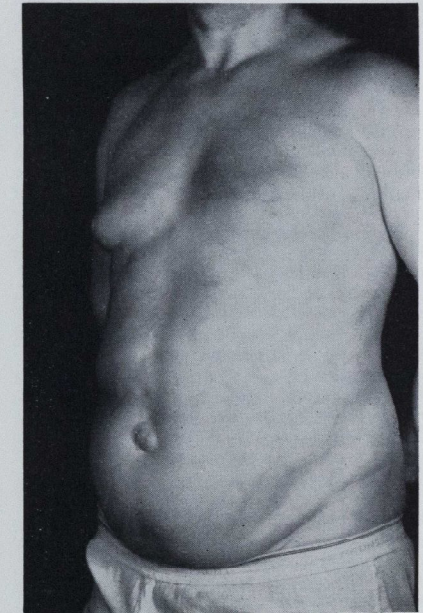


FIG.—Photographs taken before and 5 months after porta-caval anastomosis done for variceal hæmorrhage and ascites. The right-hand photograph, besides showing that the ascites has been relieved, demonstrates well the reduction in congestion of the abdominal wall and the improved nutrition of the patient generally. The low position of the umbilicus in the first picture (Tanyol's sign) is corrected after operation.

The ascites was removed in 47 out of the 49 survivors and the patients returned to a reasonably normal life, many to full strenuous work. Eighty per cent of these operations have been judged successful. Out of the 48 patients operated on before the end of 1960, 24 have survived more than 3 years, the longest 11½ years and going strong. The 3-year survival rate of all cases is, therefore, 50%. Since the introduction of more efficient methods of diuretic treatment, shunt operations are done less often for ascites. Of those operated on during the last three years, 12 out of the 13 survive, the one death being precipitated by a fractured femur one year after operation.

Referring to Table 6, it will be seen that the overall 3-year survival rate is 60%, 59% for porta-caval anastomosis and 62.5% for spleno-renal. In the presence of ascites it is 50%, whether the patients have bled or not, so the outlook is materially worse than for the patient with hæmorrhage alone. There are, however, enough thoroughly successful long-term survivors after shunt operations in cases of ascites to make the method well worth while.

Late deaths from liver disease occur at an average of 2.8 years after operation, the same interval as in the entire series. Peripheral oedema, ascites, pleural effusions and general anasarca will often recur prior to death as a terminal manifestation of liver failure, but the emphasis of unrelieved fluid retention is not on the uncomfortable abdomen if a shunt operation has been done. The patients are not distressed from abdominal distension and usually do not require paracentesis.

Other operations for the relief of ascites (practised in cases considered to be unfit for shunt operations.)

- i. Ligature of hepatic artery (vide supra), 15.
- ii. Spitz-Holter valve (peritoneo-inferior vena caval drainage) (Smith, 1962), 2.
 - 1 ascites relieved, died of hæmorrhage, at 6 months.
 - 1 ascites improved, died of liver failure, at 3 months.
- iii. Ileo-entrectomy (Neumann *et al.* 1956) 2. Both temporarily successful in relieving ascites, though mucous fistulae were troublesome.
 - 1 died from hæmorrhage and liver failure at 2½ years.
 - 1 died from liver failure at 4 months.

TABLE 15.

Yet other procedures have been tried without benefit, e.g. Crosbie Clunie button, peritoneo-

saphenous anastomosis, Talma-Morison omentopexy.

Conclusion. Medical treatment of ascites has been much more effective recently than in the past and operations are, therefore, done less often in the presence of gross ascites. If they are to be done, decompression by a shunt operation is the treatment of choice if the liver is functioning well enough. In my experience, end-to-side porta-caval anastomosis has been effective. It reduces intrahepatic congestion by removing the burden of hypertensive portal blood and in the portal tree it reduces filtration pressure. Other types of anastomosis—the side-to-side anastomosis, the anastomosis-incontinuity and the MacDermott double-barrelled shunt—allow back-flow from the liver, improving hepatic decongestion, but adding to the risks of acute liver failure from ischaemia due to diversion of hepatic arterial blood. Spleno-renal anastomosis is a more peripheral decompression and the risk of back-flow of hepatic arterial blood seems to be less.

(iii) **Cruveilhier-Baumgarten Syndrome** (Large patent umbilical vein).

Total 16—all cirrhotics,

- 1 also a case of Chiari's disease;
- 2 had portal vein thrombosis after splenectomy.

- Treatment.* (a) 4, spleno-renal anastomosis, 2 thrombosed, proceeded to porta-caval anastomosis.
- 2 done for anaemia, 6½ years and 3 months ago, both successful.
- (b) 12, porta-caval anastomosis (2 following spleno-renal), 4 died of liver failure at 8, 8, 4½ and 1½ years post-operatively. 1 died of intercurrent disease 4 years post-operatively. 7 alive, 6 well at average of 7½ years, 1 suffers from episodic stupor, 1 year post-operatively.
- (c) 2, splenectomy only.
- 1 well at 3¼ years (Budd-Chiari).
 - 1 recent, with cirroid aneurysm of splenic artery.
- No post-operative death.

TABLE 16.

In my experience, porta-caval anastomosis appears to be the best treatment, although it entails sacrificing the umbilical vein. I have not done an omphalo-vena-caval anastomosis (Leger, 1962), which is an easier operation, though not often possible.

(iv) **Portal Hypertension with Biliary Obstruction** (Secondary biliary cirrhosis with the obstruction unrelieved).

When biliary obstruction and portal hypertension are present at the same time, the pressing matter (in the absence of acute hæmorrhage) is usually the relief of the biliary obstruction. In one excellent case it was possible to do a cholecystectomy, choledocholithotomy and a porta-caval anastomosis in one emergency operation for hæmorrhage. The patient is alive and in normal health 5 years later. Ordinarily we aim to remove the biliary obstruction at a first operation and do a porta-caval anastomosis subsequently. However, we have encountered some cases in which the adhesions following previous cholecystectomy have been of such vascularity that operative approach to the site of obstruction is rendered well nigh impossible. In such circumstances I have done a spleno-renal anastomosis as a first stage and relieved the biliary obstruction later.

(v) **Portal Hypertension and Peptic Ulceration** (proved either by X-rays or found at operation or post mortem).

242 patients having anastomosis, 43 peptic ulcers	18%
27 before and perhaps after shunt	11%
16 developing after shunt operation	7%

(These do not include many cases in which gastrectomies, etc., have been done for peptic ulcer in cirrhotic patients who have not required a shunt operation, in whom the cirrhosis has been an incidental finding.)

TABLE 17.

(vi) **Diabetes mellitus**

There have been 17 cases in 242 patients having shunt operations (7%). Hæmochromatosis was the cause in 8, though in some the hæmochromatosis only became evident after porta-caval anastomosis. In the other 9, 8 had diabetes before the shunt and one developed it after operation. In 4 the glycosuria became reduced following porta-caval anastomosis, suggesting that relief of congestion within the pancreas had improved the function of the islet tissue.

(vii) **Prophylactic Shunt Operations**

(22 patients).

These are operations done with the specific intention of preventing hæmorrhage from occurring in a patient in whom varices have been demonstrated. Sometimes the varices

were very extensive. There was, however, always another indication for the operation:

Splenic anaemia	4
Ascites	11
Ascites with jaundice	3
Jaundice	4

All these patients had moderate or severe cirrhosis, and the risk of death from their first hæmorrhage would have been considerable, whether it had been controlled by medical treatment or not.

Prophylactic shunt operations.

14 porta-caval anastomoses.	
8 spleno-renal anastomosis.	
(including the 4 with splenic anaemia)	
22	2 post-operative deaths. Mortality 9.1%.

Late deaths from liver failure, 5, at average of 3½ years post-operatively, 23%.

Late deaths from intercurrent disease, 3, at average of 3½ years post-operatively, 14%.

Lost to follow-up, 2, at 3 and 3½ years.

Survivors, 10, the longest 10½ years.

(Both post-operative deaths were due to liver failure in bad risk cases of advanced cirrhosis with gross ascites, treated on their return from prisoner-of-war camps in the Far East.)

TABLE 18.

One spleno-renal anastomosis thrombosed. The patient died of liver failure precipitated by hæmorrhage 5½ years after operation. This is the only case in this series that has bled. It is included under the heading of Late Deaths from Liver Failure.

In view of the advanced state of the cirrhosis in most of these patients, the results compare favourably with the other groups. The selection of a patient for a prophylactic shunt is largely a matter of personal experience. Looking back over the series as a whole I am constantly reminded that the outlook for the patient with moderate or advanced cirrhosis, who has demonstrable portal hypertension with varices, and yet who has not bled, is poor. None survive more than a year or two without a bleed, which in this group is even more dangerous than usual. The man who does the emergency operations for hæmorrhage is the person to appreciate most forcibly the value of a prophylactic shunt operation, particularly if the bleeding patient has been under medical supervision for some months beforehand.

EXTRAHEPATIC (POSTHEPATIC) PORTAL OBSTRUCTION

The Budd-Chiari Syndrome. (8 cases.)

- 4 due to secondary malignant disease. (compression of hepatic veins)
- 2 with vena caval obstruction
- 2 without vena caval obstruction
- 4 Chiari's disease (thrombosis of hepatic veins).
- 1 acute case with inferior vena caval involvement. Dead.
- 1 associated with leukaemia and carcinoma of the stomach, dead of multiple emboli.
- 2 chronic cases, both alive, both with inferior vena caval involvement.

TABLE 19.

The only two survivors are the two cases of Chiari's disease which have developed

All dead of cancer.

chronically. The first had a porta-caval anastomosis, before his inferior vena cava had become obstructed, and the stoma thrombosed. Subsequent splenectomy did not improve him. He now has enormous collateral channels up his body. The second was a young boy who did well following "simple" splenectomy.

Constrictive Pericarditis

Both had ascites and peripheral oedema. The first had two pericardiectomies, 18 years before and again 1½ years before death from cancer.

The second had pericardiectomy done by Mr. O. S. Tubbs in 1959. He recovered well and is in good health.

EXTRAHEPATIC (PREHEPATIC) PORTAL OBSTRUCTION

(A) Congenital Type

"Congenital" portal vein obliteration and neonatal portal vein thrombosis from suppurative omphalitis account for 43 out of 73 cases. The commonest presenting symptom is hæmorrhage from the varices. More rarely it is anæmia of the splenic type. In either case the condition usually makes itself evident in childhood, though a few have continued into adult life before being diagnosed. The problem is mechanical rather than metabolic. The aim of treatment is to prevent the bleeding from recurring either by decompressing the portal tree or by stopping portal blood reaching the dangerous varices. The difficulty lies in the lack of availability of suitable veins for anastomosis. The prolific manner in which the body develops collaterals makes it difficult to interrupt the flow to the varices. Seventy-five major operations were done for 40 of the patients making up this group, without an operative death. The methods are less stereo-

typed and more diverse than in cirrhosis; and the long-term results are, of course, better.

Spleno-renal Anastomosis.

It would seem that there is a tendency in these cases for the thrombosis to extend throughout the whole portal tree. A shunt operation should be deferred if possible until the child is 13 years old. Prior to that the veins are too small and delicate for success. If a successful anastomosis can be established, the result is perfect.

Spleno-renal anastomosis.

- 14. (First significant operation in each case.)
- 4, no subsequent hæmorrhage, well at average of 7¼ years 28.5% success
- 10 bled again 71.5% failure
- 1 died of subsequent hæmorrhage.
- 1 died of intercurrent disease (bronchiectasis).
- 8 had subsequent operations.

TABLE 20.

Anastomoses other than spleno-renal

Seven have thrombosed and six of these have had subsequent operations. It may be concluded that porta-caval anastomosis is well worth doing in this group, if possible. The rest, even the superior mesenteric-inferior vena caval anastomosis (Marion, *et al.*, 1960) are of doubtful benefit.

Anastomoses other than spleno-renal.

- Total 9. Second operation in 8, third operation in 1.
- Porta-caval Anastomosis 3. 2 well at average of 7½ years,
- 1 subsequent hæmorrhage from thrombosed stoma, alive at 7¼ years, 2/3 successful.
- Superior Mesenteric-Inferior Vena Cava, 2. Both had subsequent hæmorrhage from thrombosis. Alive at 10½ and 2½ years.
- Inferior Mesenteric-Inferior Vena Cava, 1. Thrombosed, subsequent hæmorrhage. Alive at 11 years.
- Cavernomatous Vessel-Inferior Vena Cava, 3. All thrombosed, subsequent hæmorrhage. All alive at average of 13 years.

TABLE 21.

Splenectomy alone

Splenectomy is more effective than is suggested by these figures, in that other cases of splenectomy done elsewhere, who have not bled again, will not have been referred. The average period of survival after splenectomy has been 12 years, and the longest interval to subsequent hæmorrhage 25 years. However, splenectomy should not be done, in that the splenic vein is often the only channel available for a shunt and a successful spleno-renal anastomosis is permanently curative.

Splenectomy alone.

- 16. (First operation in each case.)
- 1 no subsequent hæmorrhage. Well at 2½ years.
- 2 died of mesenteric thrombosis, 2 months and 2 years after splenectomy.
- 13 bled again. Further operation in 12.

TABLE 22.

"Interruption" Operations

Proximal Gastric Transection and Proximal Gastric Resections are "interruption" operations, the resection being the more extensive procedure, but carrying a better success rate—81% at 6¼ years as compared with 50% at 3½ years. Nutritional disturbances are not as great as might be expected, even in childhood. Growth proceeds well once the child has become adapted to his small stomach. This

adaptation takes six to nine months. They require frequent medical supervision. Adults are thin but usually able to lead normal lives and do full work. However, the complications of the operation, such as stricture at the site of anastomosis and fistula formation from necrosis at the suture line, are greater than for transection. The five operations subsequent to transection were all resections and these have prolonged the survival after the first ineffective operation. Two of the successful resections were done as emergencies to stop bleeding from gastric varices.

In doing the resection I have not yet utilized colon or jejunum as a replacement for proximal stomach and distal oesophagus. My own conclusion is that the oesophagus serves as a satisfactory gullet.

Injection of Varices (Crafoord and Frenckner), was done as a sequel to a failed definitive operation on many of these patients, in an attempt to reduce the number of hæmorrhages.

"Interruption" Operations.

- A. Proximal Gastric Transection (Tanner's operation) (Tanner, 1961), total 12, with or without splenectomy.
- 1st operation in 6,
- 2nd " " 4,
- 3rd " " 2.
- 6 no further bleed. Well at an average of 3½ years—50% successful.
- 6 bled again,
- 1 died of hæmorrhage,
- 5 had subsequent operations (proximal gastric resection), alive at an average of 11½ years.
- B. Proximal Gastric Resection (Phemister and Humphreys, 1947), total 21, with splenectomy if spleen not previously removed.
- 1st operation in 4,
- 2nd " " 11,
- 3rd " " 3,
- 4th " " 3.
- 17 no further hæmorrhage, alive at an average of 6¼ years—81% successful.
- 2 subsequent hæmorrhages,
- 1 fatal hæmorrhage,
- 1 alive at 4 years,
- 1 died of pulmonary embolism (late death),
- 1 died of intercurrent disease.

TABLE 23.

(B) Acquired portal vein thrombosis.

Infective portal pylephlebitis and thrombosis associated with other conditions conducive to thrombosis, such as polycythaemia and leukaemia, accounted for 19 of the 30 cases of acquired prehepatic portal obstruction. The other 11 were due to compression or invasion

of the portal vein, usually by a tumour. Thrombosis was often present in addition to the distortion of the vein.

The prognosis depends largely on the causative condition. If the cause is an old infective thrombosis and a spleno-renal anastomosis can be constructed with success, the outlook is good. The post-operative deaths followed proximal gastric transection and the Boerema-Crile operation, both done as emergencies to stop hæmorrhage but the hæmorrhage recurred. The bleeding was seen at operation to be coming from the stomach in each case, so both might well have been successful had the operations been extended to include resection of proximal stomach. However, both patients were very ill at the time of operation, one having already had 80 pints of blood transfused at another hospital.

Operations for acquired portal vein thrombosis
(22 major operations in 19 cases).

- a. *Spleno-renal Anastomosis*, 4.
All well at an average of 6 years.
100% successful.
 - b. *Proximal Gastric Transection*, 5.
1 post-operative death from hæmorrhage which recurred within 3 days.
*2 bled again,
1 late death from intercurrent disease,
1 alive and well at 4 years. 1/5 successful.
 - c. *Proximal Gastric Resection*, 4.
1 died intercurrent disease at 4 months,
*1 bled again at 8 years,
2 alive and well at an average of 8 years.
2/4 successful.
 - d. *Splenectomy alone*, 5.
4 died,
1 of pulmonary embolus at 2 months,
1 of mesenteric thrombosis at 4 months,
1 of hæmorrhage at 8 years,
1 of intercurrent disease.
1 bled again, alive 25 years after splenectomy.
None successful.
 - e. *Boerema-Crile operation*, 2 emergencies.
1 died post-operatively,
1 well at 6 years—successful.
 - f. *Enterectomy for mesenteric thrombosis*, 2.
Both well.
- *The same patient—3 operations (2 transections and one resection), all failures.
(In addition to the above operations, four patients had repeated injections of varices and another had drainage of a liver abscess.)

TABLE 24.

Thrombosis developing within the portal system usually runs a comparatively indeterminate course, unlike the picture of acute

mesenteric thrombosis depicted in the text books. Fulminating cases do indeed occur and their gravity lies in the hazards of gangrene and intestinal obstruction. When venous thrombosis develops more insidiously the clinical course is somewhat as follows:

1. *Abdominal distension* due to wind from partial intestinal obstruction, presumably the result of congestion of the intestine, with *some pain*.
2. *Mild pyrexia* and elevated pulse rate.
3. Accumulation of *ascitic fluid* by transudation from the congested intestinal wall, in the more severe cases.
4. *Hæmatemesis and melæna* may occur, or an occult form of intestinal hæmorrhage.
5. When the thrombus extends up into the liver, it will be accompanied by evidence of *inflammation of the portal tracts*, even in the absence of infection. This intrahepatic aseptic inflammation may lead to interference in the passage of bile through the duct system with consequent icterus or jaundice.

The picture may thus mimic that of advanced cirrhosis, except that coma does not supervene, unless the hæmorrhage is massive. In four of the cases where I have seen this condition develop in adults I have been able later to prove at operation that the liver was normal. Portal thrombosis in a cirrhotic patient will run a more serious course, though the extent of the condition can, in all cases, vary from the mild to the rapidly fatal.

If the condition is not arrested by the administration of an anticoagulant, in the absence of hæmorrhage, and supportive measures, nutritional disturbances and fluid retention may cause a marked and rapid reduction in serum albumin, even in extrahepatic obstruction, mimicking the acute deterioration of a cirrhotic with persistent hæmorrhage.

Thrombosis localised to the splenic vein has been encountered twice. In both, splenectomy was successful and there has been no subsequent hæmorrhage during the seven and three years since the operation.

CONCLUSION

These results of the treatment of portal hypertension have been related whenever possible to the underlying disease or pathological state responsible for the portal obstruction. In cirrhosis, which is by far the commonest group, the degree of liver damage varies very much from case to case and the results depend more upon the extent and progressiveness of the liver disease than anything else. No surgical procedure can stop a pathological process progressing, but it can, by preventing hæmorrhages, delay it. Conversely, if the disease itself has already become arrested and the continued decline of the patient's condition is due to recurrent hæmorrhages, prevention of hæmorrhage may lead to an improvement in the liver function. We are still accumulating evidence to weigh the advantages of surgical treatment against its risks and untoward complications.

The statement of results given here is somewhat bald and cannot take many controversial matters into consideration, nor has any attempt been made in this article to relate the success or failure of surgical treatment to the age of

the patient at the time of operation. Each patient has been considered as an individual problem and old age has not been used as an excuse not to operate.

In considering extrahepatic portal obstruction the above considerations rarely apply. The problem is a mechanical one, usually in the younger age group, of finding a vessel suitable for decompressing the portal tree and utilizing it to best advantage; or working out an alternative method of interrupting the flow of portal blood to the dangerous area of bleeding varicosities. While decompressive operations in cirrhosis may produce unphysiological effects, they rarely do so in extrahepatic obstruction. Interruption operations, on the other hand, are less effective and they are inclined to interfere with normal digestion in all groups.

In conclusion I would like to thank the very many people who have co-operated in attempting to unravel the problems of portal hypertension and work out the treatment. In no other branch of medicine is a close co-ordination between the different disciplines more essential for the benefit of the patient.

REFERENCES

- ATKINSON, M., and GOLIGHER, J. C. (1960): *Lancet*, **1**, 461.
- BOEREMA, I. (1949): *Arch. Chir. Nederland*, **1**, 253.
- CRAPOORD, C., and FRENCKNER, P. (1939): *Acta otolaryng., Stockh.*, **27**, 422.
- CRILE, G., Jr. (1953): *Surg. Gynec. Obstet.*, **96**, 573.
- GARCEAU, A. J., and CHALMERS, T. C. (1963): *New Engl. J. Med.*, **268**, 469.
- HUNT, A. H. (1952): *Brit. med. J.*, **2**, 4.
- HUNT, A. H. (1955): Page 1464 in "Abdominal operations", 3rd edn., ed. Rodney Maingot. New York: Appleton-Century-Crofts.
- HUNT, A. H. (1958): "Portal Hypertension." Edinburgh: Livingstone.
- HUNT, A. H. (1964a): *Brit. J. Surg.*, **51**, 749.
- HUNT, A. H. (1964b): Page 780 in "The Craft of Surgery", ed. by Philip Cooper. Boston: Little, Brown & Co.
- HUNT, A. H. (1964c): *Rev. intern. d'Hépatologie*, **14**, 281.
- HUNT, A. H., PARR, R. M., TAYLOR, D. M., and TROTT, N. G. (1963): *Brit. med. J.*, **2**, 1498.
- LEGER, L., and MARION, P. (1964): Proc. de 66e Congrès Français de Chirurgie, Paris.
- LEGER, L., and PREMONT, M. (1962): *J. de Chirurgie*, **83**, 5.
- MCDERMOTT, W. V., Jr. (1960): *Surg. Gynec. Obstet.*, **110**, 457.
- MCDERMOTT, W. V., VICIUK, M., and WARREN POINT, W. (1962): *New Engl. J. Med.*, **267**, 850.
- MARION, P., BOUCHET, A., and YON, M. (1960): *Ann. Chir. (Par.)*, **14**, 581.
- NEUMANN, C. G., BRAUNWALD, N. S., and HINTON, J. W. (1956): *Surgical Forum*, **6**, 374.
- PEMISTER, D. B., and HUMPHREYS, E. M. (1947): *Ann. Surg.*, **126**, 397.
- RATNOFF, O. D., and PATEK, A. J., Jr. (1942): *Medicine*, **21**, 207.
- RIENHOFF, W. J., Jr. (1951): *Bull. Johns Hopk. Hosp.*, **88**, 368.
- SMITH, A. N. (1962): *Lancet*, **1**, 671.
- TANNER, N. C. (1961): *Proc. Roy. Coll. Surg. Engl.*, **28**, 153.
- THOMPSON, E. N., and SHERLOCK, S. (1964): *Quart. J. Med.*, **33**, 465.
- THOMPSON, W. P. (1940): *Ann. intern. Med.*, **14**, 255.

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CLINICAL AND
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CARDIAC INVOLVEMENT IN THE
COLLAGEN DISEASES

by A. K. Thould

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Just a little less than 100 years ago, early in the second half of the nineteenth century, Jaccoud (1869) first brought attention to the involvement of the heart in a 19-year-old youth with arthritis. Ever since then the variant that he described has been the subject of controversy, and the issue is not settled yet. In 1897 Still found the presence of an adherent pericardium in three of 12 cases of juvenile rheumatoid arthritis. Libman and Sacks in 1924 made their observation of non-bacterial verrucous endocarditis in four patients with systemic lupus erythematosus. Arthralgia or arthritis is easy to recognise and is perhaps the commonest manifestation of the collagen diseases as a group, obvious enough to both patient and doctor alike. Systemic and visceral lesions in these diseases however, though just as common, are often much less easy to recognise. Cardiac lesions are in fact frequent in the group, but as they do not often give rise to very obvious symptoms, they are commonly overlooked by

the clinician. It is left to the pathologist to make the observation at autopsy.

The purpose of this paper is to attempt to correct the balance a little, by describing the cardiac lesions known to occur in rheumatoid arthritis, ankylosing spondylitis, progressive systemic sclerosis (scleroderma), systemic lupus erythematosus and Reiter's syndrome, with an attempt to place the Jaccoud variant of arthritis in perspective.

Rheumatoid Arthritis

The cardiac lesions observed in rheumatoid arthritis may be classified as follows:—

(a) Sclerosis of the valve cups and chordae tendineae. This occurs in about 6% of cases (Wilkinson, 1962). There may be patchy calcification with slight fibrosis of the valve cusps and chordae, and rarely this can lead to stenosis and incompetence if it is severe (Cruikshank, 1958). The latter is however commoner in ankylosing spondylitis. The mitral ring and

valve cusps may show chronic inflammatory changes alternating with areas of dense fibrous tissue. The aortic ring is usually involved less severely. Cellular infiltration is diffuse, with foci of lymphocytes, plasma cells, histiocytes and myocytes, and small numbers of eosinophils. Usually it does not give rise to significant deformity of the valve, and is missed clinically. Unless there is mitral stenosis or aortic incompetence, and both are rare, the only clinical manifestation may be a non-specific systolic murmur which would not be regarded clinically as of any significance. In those rare cases where there is mitral stenosis or aortic incompetence or both (one case in 100 according to Cruikshank, 1958) the appropriate diastolic murmur is usually heard. Aschoff bodies are not seen, and this process seems to be due to the rheumatoid disease, and not to coincidental rheumatic heart disease.

(b) Rheumatoid granulomata, similar to the subcutaneous nodules seen in rheumatoid arthritis, which involve the pericardium, myocardium, the leaflets and rings of the aortic and mitral valves, and the ascending aorta in its first 2 or 3 cms. Sokaloff (1953) estimated the frequency of these lesions as 1 to 3% of all cases, though Cruikshank (1958) found them in 5%. These granulomata do not often seem to give rise to deformity of the valves. They are most prominent in the mitral ring, but the valves and chordae tendinae may also be involved. They are often too small to be seen with the naked eye, and there are usually several foci in each histological section. They are characterised by a central necrotic region containing granular eosinophilic material and nuclear remnants. Similar lesions may be found in the myocardium, usually near to the mitral ring, and consisting of small focal interstitial collections of lymphocytes, plasma cells and histiocytes. Sometimes these granulomata are close to myocardial vessels and have been described in both ventricles and both atria. They are most often seen however in the left ventricle, and may be accompanied by fibrinoid change in the arterioles. Clinically, these lesions rarely give rise to symptoms or signs unless they involve the pericardium severely.

(c) Aortic incompetence secondary to aortic ring involvement and accompanied by aortitis. This is a rarity in rheumatoid arthritis, where it probably occurs in 1 or 2% of cases (Cruikshank, 1958), (Egelius and others, 1955). It is commoner in ankylosing spondylitis. The incompetence arises due to distortion of the

aortic valve secondary to involvement by rheumatoid granulomata.

(d) Pericarditis is the commonest cardiac lesion seen in rheumatoid arthritis, and estimates of its frequency vary from 11 to 50% (Wilkinson, 1962). The lesions may vary from patches of epicardial fibrosis without adhesions to complete obliteration of the pericardial sac (Cruikshank, 1958). Recent granulomata may be observed in the pericardium even when the joints are no longer active. It may be accompanied by pleurisy, and clinically is diagnosed much less frequently than it in fact occurs. The pericarditis often appears in relatively short episodes, as in systemic lupus erythematosus, but the ECG may take months to recover (Wilkinson, 1962). It may relapse. Clinically it presents with chest pain which may be aggravated by movement, swallowing or respiration, and can be severe. There is often a fever up to 102°F and dyspnoea, and the neck veins may be distended. A pericardial friction rub is heard. Chest X-ray reveals an enlarged cardiac shadow. At the time of the acute lesion pericardial biopsy at thoracotomy often shows only a thickened pericardium and non-specific acute and chronic inflammatory changes, and perhaps a few giant cells may be present (Grossman and others, 1962). It is frequently accompanied by a left pleural effusion.

(e) Arteritis may be found, active or healed, in as many as 20% of cases (Cruikshank, 1958). It may be associated with myocarditis or rheumatoid granulomatous endocarditis, or with multiple small infarctions of the myocardium. It may uncommonly involve the coronary arteries or their branches (Levin and others, 1955).

(f) Myocarditis. This is associated with multiple foci of rheumatoid granulomatous lesions in the myocardium, most commonly near the mitral ring. It is rare for it to give rise to cardiac symptoms, such as cardiac failure (Cruikshank, 1958).

(g) Amyloid infiltration of the heart has been described, though it is not common (Levin and others, 1955).

The overall incidence of rheumatoid heart disease clinically is less than 1% to 2%, but autopsy studies reveal a far higher incidence of cardiac lesions, particularly pericarditis, involving between one-third and one-half of all cases. Subcutaneous nodules and episcleritis seem to be commoner in those with heart disease (Cruikshank, 1958), and indeed these lesions are known to be associated with a poor prognosis in rheumatoid arthritis (Duthie and others,

1964). The ECG may show most commonly the changes of pericarditis or myocarditis. There may be low voltage QRS and T wave changes or elevation of the ST segments across the chest leads progressing to T wave inversion. Occasionally there may be changes of intraventricular conduction defects (left or right bundle branch block) or even of first degree atrio-ventricular block (prolonged PR interval). It is rare to see an arrhythmia due to rheumatoid heart disease (Wilkinson, 1962), (Egelius and others, 1955), (Grossman and others, 1962).

Ankylosing spondylitis

A review of the American literature of this disease is bedevilled by the fact that the authors usually classify it with rheumatoid arthritis. In many papers therefore it is difficult to tell whether the cardiac lesions described are due to rheumatoid arthritis or ankylosing spondylitis, and they have to be discarded. From those papers where the distinction is clear however, a picture emerges of cardiac involvement different from that seen in rheumatoid arthritis. Cardiac lesions are most often seen in those patients with involvement of peripheral joints, iritis (Ansell and others, 1958) and severe involvement of the spine (Schilder and others, 1956). The characteristic lesion is aortic incompetence and aortitis, becoming apparent some 11 to 12 years after the onset of the ankylosing spondylitis (Clark, and others, 1957), (Ansell and others, 1958). The incidence of cardiac involvement is variously reported as being between 0.1% (Schilder and others, 1956) and 2.4% (Davidson and others, 1963). Put the other way round, about 5% of patients with aortic incompetence appear also to have ankylosing spondylitis (Schilder and others, 1956). Characteristically, the heart involvement follows an episode of acute polyarthritis affecting the peripheral joints. The aortic valve cusps are thickened with fibrous tissue, with rolling of the free margins. The cusps may be retracted and the commissures thickened but not inter-adherent (Clark and others, 1957), (Ansell and others, 1958). There may be triangular calcified plaques in the aortic wall about each commissure, and there are usually spider-like scarred depressions in the ascending aorta for its first few cms, with thinning of the wall. Rarely, these lesions may even spread down as far as the origin of the renal arteries (Ansell and others, 1958). There is some myocardial fibrosis around the insertions of the aortic, mitral and tricuspid valves, with an increase in perivascular lymphocyte infiltrations and mucinous ground sub-

stance. The valve leaflets of the aortic and mitral valves show fibrous thickening and focal deposition of granular calcareous material. It is unusual however for the thickening of the mitral valve cusps to give rise to clinical mitral incompetence or stenosis, though it does occur (Ansell and others, 1958). The predominant lesion clinically is aortic incompetence and its consequences. The fibrous tissue in the valve leaflets may be in whorled masses of hyalinised collagenous tissue, markedly thickened at the base, and spreading into the annulus. No Aschoff bodies are seen. There may be mild vascularisation at the base of the aortic valve (Clark and others, 1957), (Schilder and others, 1956). The proximal segment of the aorta and the aortic root may be dilated, and the wall varies greatly in thickness, with several small aneurysmal out-pouchings. The lesions are very similar to, and may easily be mistaken for, those of syphilitic aortitis. There may be involvement of the coronary ostia. Microscopy of the aorta shows focal necrotic lesions of the media surrounded by infiltration with neutrophil white cells and with marked fragmentation of the elastic fibres but preservation of the reticulin fibres. At the aortic root there are often extensive inflammatory changes about the small blood vessels of the media. Perivascular lymphocyte infiltration of the vasa vasorum of the adventitia may also be seen, but "onion-skin" perivascular fibrosis and focal regions of fibrinoid degeneration as seen in rheumatic fever are not observed (Valaitis and others, 1957).

Transient pericarditis may occur, and extensive pericardial adhesions may be observed at autopsy (Wilkinson and Bywaters, 1958). Once the heart becomes involved the prognosis for life becomes poor, and most patients only survive for a further decade or so at most. The average length of survival in one series was seven years (Schilder and others, 1956). These patients are often moderately anaemic, and may have a markedly elevated E.S.R., though this is not invariable. They show all the classical signs of aortic incompetence, with a water-hammer pulse, left ventricular hypertrophy, often a gallop rhythm, and invariably a diastolic aortic murmur. This may be accompanied by a systolic ejection murmur. There is usually a wide pulse pressure once the incompetence is established, and inexorably they progress to left ventricular failure. They may have anginal pain if the coronary ostia are much distorted and narrowed. The ECG shows the changes of

left ventricular hypertrophy and strain, and usually a prolonged PR interval (up to 0.36 seconds). The degree of prolongation of the PR interval can and does vary in the individual. The ECG seen in the Figure demonstrates a similar change seen in a patient with Reiter's syndrome recently admitted to St. Bartholomew's.

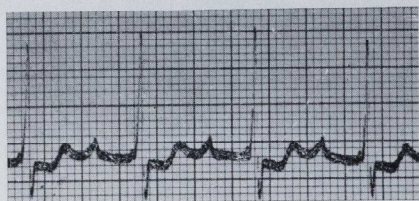


FIG.—Electrocardiograph showing prolonged PR interval and depressed ST segment in a man with Reiter's syndrome.

Progressive systemic sclerosis

The first person to point out that the heart is directly involved in progressive systemic sclerosis was Matsui (1924). The cardiac lesions met with in this disease have been admirably summarised by Oram and Stokes (1961). Early deaths in this disease are usually due to renal or cardiac complications, whilst those occurring later on are due to the pulmonary complications or malnutrition. Myocardial involvement is the commonest complication, though heart failure is more usually due to chronic cor pulmonale than to direct cardiac involvement. The next most common lesion is pericarditis, and this is usually clinically silent. Involvement of the heart valves and endocardium form the least common cardiac complication.

Symptoms of heart disease usually appear late in the disease, but once these symptoms appear the average duration of life is about 30 months. The commonest symptom is dyspnoea, and right heart failure occurs in about half, and may be accompanied by a gallop rhythm. Arrhythmias and audible pericardial friction rubs are uncommon. A chest X-ray may reveal an enlarged cardiac shadow. Chest pain is common, though it is not necessarily due to cardiac involvement. The essential finding at post-mortem is of myocardial scarring, which may form white or yellow streaks or grey speckling through the whole thickness of the muscle, most commonly in the left ventricle, spreading into the epicardium and endocardium. It bears no particular relationship to blood vessels, which nevertheless may show thickening of intimal fibrous tissue (Rottenberg and

others, 1959). The atrophy of muscle fibres does not however seem to be due to interference with their blood supply (Oram and Stokes, 1961). The fibrosis is patchy. In the early stages the new connective tissue contains many fibroblasts and collagen fibres, and may contain so many capillaries as to resemble granulation tissue. Later, extensive hyaline scarring appears. At post-mortem, evidence of pericarditis is found in about two-thirds, but this is usually clinically silent. A typical non-bacterial verrucous endocarditis similar to that described by Libman and Sacks (1924) in systemic lupus erythematosus has, rarely, been described (Spühler and Morandi, 1949), usually involving the mitral valve, and even more rarely still, the tricuspid valve. Involvement of the pericardium without the myocardium also being involved is uncommon. It is very unusual to hear a diastolic murmur in patients with this disease.

The ECG changes are not pathognomonic for the disease, but abnormalities of the tracing are very common. The changes seen are commonly those of minor intraventricular conduction defects (right or left bundle branch block). There may be T wave changes or low voltage QRS complexes (Windsheim and Parkin, 1958). Hypertension is uncommon in this disease and usually it is pre-terminal, hence ECG changes of left ventricular hypertrophy are not often seen. Corticosteroids should be used with care in this disease as they may precipitate malignant hypertension.

Systemic lupus erythematosus

The heart seldom escapes involvement in systemic lupus erythematosus (Brigden and others, 1960). The cardiac lesions described can be divided up as follows:—

(a) The non-bacterial verrucous endocarditis of Libman and Sacks occurs in about one-third of cases, though it is not commonly diagnosed in life (Shearn and Pirofsky, 1952), (Dubois, 1953). The coarse vegetations usually involve the mitral valve, occurring on the chordae tendineae and just away from the free margins of the valve leaflets, forming a continuous line across the anterior and posterior leaflets on the atrial surface (Graffin and Vural, 1951). They may occasionally be found on the posterior cusp of the aortic valve, and rarely on the pulmonary and tricuspid valves (Brigden and others, 1960). They may even spread to the mural endocardium (Harvey and others, 1954). The vegetations are 1 to 4 mm across and are formed of areas of proliferation and degeneration of valve tissue and endothelial cells, mixed with fibrin and

platelet thrombi. There is often infiltration with inflammatory mononuclear cells in the valve ring and the valve base. The vegetations are characterised by fibrinoid degeneration of collagen and necrosis of cells. They may be single or occur in small conglomerates. Haematoxylin bodies may be found in association with them (Shearn, 1959). This endocarditis is however rarely diagnosed in life. The presence of a systolic murmur in the mitral area is common in systemic lupus erythematosus, occurring in about two-thirds, but it does not by any means necessarily imply that the patient has endocarditis. Brigden and others (1960) do not agree with this, but most other authors believe this to be true. The reason why the endocarditis is commonly missed by the clinician is because the involvement of the chordae tendineae and the valve cusps is rarely severe enough to lead to deformity of the valve (Shearn, 1959). A diastolic murmur is heard over the mitral area in about 4% of cases of lupus, but again this does not necessarily imply the presence of endocarditis. It may be due to pre-existing valvular disease, left ventricular dilatation because of anaemia or congestive cardiac failure, or because of superimposed bacterial endocarditis (Brigden and others, 1960). Endocarditis may be present in the absence of any cardiac murmur. Rarely, however, the distortion is enough to cause the symptoms and signs of mitral stenosis and even less often of aortic incompetence (Brigden and others, 1960).

(b) Pericarditis is perhaps the commonest cardiac lesion in this disease, seen in from one-third (Shearn, 1959) to over two-thirds (Brigden and others, 1960) of all cases. Again, it is frequently missed clinically, and a pericardial friction rub is only occasionally heard. The pericardial layers are usually found at post-mortem to be obliterated, and occasionally there may be deposits of fresh fibrin. The pericarditis frequently relapses, and sometimes it may be a continuous process. It may be associated with congestive cardiac failure. The typical anterior chest pain occurs in about a quarter of patients, but a friction rub may be heard more frequently if looked for with care. Dyspnoea as a symptom in lupus is usually due to the associated pulmonary lesions, but may be worsened by the onset of pericarditis.

(c) Hypertension occurs in about 20% of cases of systemic lupus erythematosus (Shearn, 1959), although renal involvement occurs in almost all. By the time hypertension is present the renal disease is usually far advanced, and there is azotaemia. Renal biopsies in hyperten-

sive patients show diffuse glomerulonephritis, and several have the nephrotic syndrome. Treatment with corticosteroids may precipitate the hypertension. Left ventricular hypertrophy and later a gallop rhythm and left ventricular failure may ensue, associated with a hypertensive retinopathy. Retinal lesions may of course occur in this disease in the absence of hypertension.

(d) Myocarditis is also a frequent accompaniment of systemic lupus erythematosus, being found in up to half of patients at post-mortem. It varies from minimal thickening of collagen to pronounced fibrinoid necrosis of the walls of the small myocardial arteries, with thickening and stenosis associated with large areas of myocardial degeneration. In others, there may be fine scars presumably resulting from small infarcts. It does not however often lead to cardiac failure. Myocardial infarcts of any size are probably rare (Shearn, 1959). Clinically it may present as a tachycardia out of proportion to the fever often found in the disease (Dubois, 1953). The heart may be diffusely enlarged, and there may be a soft systolic murmur. These changes may persist even in remission. Haematoxylin bodies in relation to interstitial collagen fibres may be found (Harvey and others, 1954).

ECG changes may be observed in three-quarters of patients with systemic lupus erythematosus, indicating myocardial or pericardial disease. There may be low voltage changes, ST segment elevation, T wave inversion, sinus tachycardia or prolongation of the PR interval (Harvey and others, 1954).

Cardiac involvement in systemic lupus is therefore almost universal, and frequently severe, although it may not be clinically very obvious. Even so, about 30% of patients with this disease survive for longer than five years (Jessar and others, 1953).

Reiter's syndrome

Involvement of the heart in Reiter's syndrome is not common; the incidence is probably of the order of 1 to 6% (Csonka and Oates, 1957), (Paronen, 1948). The commonest lesion observed is pericarditis, though as in all the collagen diseases it does not seem to progress to constrictive pericarditis. ECG changes may however be much more frequent, so again it is likely that many cases go undiagnosed clinically. The pericarditis often occurs within a few weeks of the onset of the disease. It may recur over the course of several years. The other heart lesion that occurs is aortic incompetence, in

association with aortitis of the first few cms of the ascending aorta. The lesions in the aorta are very difficult to distinguish from syphilis. The aortic valve abnormality is strikingly similar to that seen in ankylosing spondylitis, as is the aortitis. The mitral valve and less commonly the tricuspid may also be affected, but they do not seem to give rise to signs and symptoms of stenosis or incompetence (Csonka and others, 1961). The incidence of iritis seems to be much higher in patients with cardiac involvement. The ECG usually shows a prolonged PR interval up to 0.38 seconds. This may vary in any given individual from time to time, and sometimes it may be accompanied by flattening of the T wave. They may also show signs of intraventricular block and the changes of pericarditis (Csonka and others, 1961).

Jaccoud type of arthritis

This is a much vexed question, and has been ever since Jaccoud's original description. The very existence of a form of rheumatoid-like arthritis associated with valvular heart disease similar to that found in rheumatic heart disease is denied by many. Nevertheless such cases do seem to occur, and the problem is how to classify them. The existence of mitral and aortic valvular disease in rheumatoid arthritis, without any history or evidence of past rheumatic fever, is definitely established, as argued earlier. Some of the papers describing what the authors believe to be the Jaccoud type (Thomas, 1955) are muddled and difficult to evaluate. The paper by Bywaters (1950) however carefully describes cases under this heading with arthritis and aortic and mitral valve disease. Although the arthritis is not entirely typical of rheumatoid disease, as he points out, yet it is possible—even probable—that the so-called Jaccoud type arthritis is rheumatoid arthritis associated with the non-rheumatic valvular lesions that we know occur in the disease, and that therefore the Jaccoud type is merely the variant of the cardiac lesions in rheumatoid arthritis described earlier.

In conclusion, there is overwhelming evidence that cardiac involvement is very common in the collagen diseases, but as it is often clinically silent it is usually not diagnosed in life. Post-mortem studies however reveal just how frequent the involvement is. It is commoner in women in all but ankylosing spondylitis and Reiter's syndrome. If looked for with care, and more frequent ECG studies of patients with collagen diseases would help, cardiac involvement in this group of diseases could be diagnosed much more frequently. It is interesting

that the broad overall pattern is much the same for the whole group, but with particular facets commoner in particular diseases. In particular, the striking similarity between the cardiac lesions of ankylosing spondylitis and Reiter's syndrome is very interesting.

REFERENCES

- ANSELL, B. M., BYWATERS, E. G. L., and DONIACH, I. (1958): *Brit. Heart J.*, **20**, 507.
- BRIGDEN, W., BYWATERS, E. G. L., LESSOF, M. H., and ROSS, I. P. (1960): *Brit. Heart J.*, **22**, 1.
- BYWATERS, E. G. L. (1950): *Brit. Heart J.*, **12**, 101.
- CLARK, W. S., KULKA, J. P., and BAUER, W. (1957): *Amer. J. Med.*, **22**, 580.
- CRUIKSHANK, B. (1958): *J. Path. Bact.*, **76**, 223.
- CSONKA, G. W., LITCHFIELD, J. W., OATES, J. K., and WILLCOX, R. R. (1961): *Brit. med. J.*, **1**, 243.
- CSONKA, G. W., and OATES, J. K. (1957): *Brit. med. J.*, **1**, 866.
- DAVIDSON, P., BAGGENSTOSS, A. H., SLOCUMB, C. H., and DAUGHERTY, G. W. (1963): *Proc. Mayo Clinic*, **38**, 421.
- DUBOIS, E. L. (1953): *Ann. intern. Med.*, **38**, 1265.
- DUTHIE, J. I. R., BROWN, P. E., TRUFLOVE, I. H., BARAGAR, F. D., and LAWRIE, A. J. (1964): *Ann. rheum. Dis.*, **23**, 193.
- EGLIUS, N., GOHLE, O., JONSSON, E., and WAHLGREN, P. (1955): *Ann. rheum. Dis.*, **14**, 11.
- GRIFFITH, G. C., and VURAL, I. L. (1951): *Circulation*, **3**, 492.
- GROSSMAN, L. A., KAPLAN, H. J., OWNBY, F. D., and GROSSMAN, M. (1962): *Arch. intern. Med.*, **109**, 665.
- HARVEY, A. M., SHULMAN, L. E., TUMULTY, P. A., CONLEY, C. L., and SCHOENRICH, E. H. (1954): *Medicine (Baltimore)*, **33**, 291.
- JACCOUD, S., *Leçons de Clinique Médical faites à l'Hôpital de la Charité (1869)*: 2nd Ed., Delahaye, Paris.
- JESSAR, R. A., LAMONT-HAVERS, R. W., and RAGAN, C. (1953): *Ann. intern. Med.*, **38**, 717.
- LEVIN, M. H., KAPLAN, L., MARCUS, S., WEINBERGER, H. J., and PATTERSON, J. Jnr. (1955): *Ann. rheum. Dis.*, **14**, 430.
- LIBMAN, E., and SACKS, B. (1924): *Arch. intern. Med.*, **33**, 701.
- MATSUI, S. (1924): *Mitt. med. Fak. Tokyo*, **31**, 55.
- ORAM, S., and STOKES, W. (1961): *Brit. Heart J.*, **23**, 243.
- ROTTENBERG, E. N., SLOCUMB, C. H., and EDWARDS, J. E. (1959): *Proc. Mayo Clinic*, **34**, 77.
- SCHILDER, D. P., HARVEY, W. P., and HUFNAGEL, C. A. (1956): *New Engl. J. Med.*, **255**, 11.
- SHEARN, M. A. (1959): *Amer. Heart J.*, **58**, 452.
- SHEARN, M. A., and PIROFSKY, B. (1952): *Arch. intern. Med.*, **90**, 790.
- SOKOLOFF, L. (1953): *Amer. Heart J.*, **45**, 635.
- SPUHLER, O., and MORANDI, L. (1949): *Helv. med. Acta.*, **2**, 147.
- STILL, G. F. (1897): *Med. Chir. Trans. (Lond.)*, **80**, 47.
- THOMAS, A. E. (1955): *Ann. rheum. Dis.*, **14**, 259.
- VALAITIS, J., PILZ, C. G., and MONTGOMERY, M. M. (1957): *Arch. Path. (Chicago)*, **63**, 207.
- WILKINSON, M. (1962): *Brit. med. J.*, **2**, 1723.
- WILKINSON, M., and BYWATERS, E. G. L. (1958): *Ann. rheum. Dis.*, **17**, 209.
- WINDESHEIM, J. H., and PARKIN, T. W. (1958): *Circulation*, **17**, 874.

CURRENT TRENDS IN RECTAL SURGERY

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In recent years there has been progress in many fields of surgery, and in the realm of rectal diseases there have been a number of interesting advances.

The basis of surgical treatment must always be a correct understanding of the anatomy, physiology, and pathology of the organ concerned, and then the application of surgical method to the problem in hand. Advance stems either from fuller knowledge in the sphere of these basic medical sciences, and the application of that knowledge in treatment, or from an improvement in surgical techniques. So with the rectum and anal canal, there have been advances in these different directions, and progress has resulted.

Fissure and Fistula

The anatomy of the sphincters of the anal canal has been a subject that has provoked interest for many years. The descriptions of the external and internal sphincters which appear in the standard textbooks of anatomy are the product of careful dissection of these muscles. However, it has only recently been appreciated (Morgan and Thompson¹) that the relative disposition of the sphincters to one another alters under certain circumstances; in particular during defaecation and also under the peculiar circumstances of placing the anaesthetised patient in the lithotomy position for surgery, and emphasised by fraction on the lining of the anal canal, as for example in a haemorrhoidectomy operation. Under these conditions, the internal sphincter descends, and the external sphincter migrates upwards. Correct operative technique in anal surgery depends on the accurate identification of the sphincter muscles. This precept is exemplified by the operation of sphincterotomy for anal fissure. The sphincter that is (partially) divided in this operation is not a part of the external anal sphincter as was once thought, but the lower portion of the internal sphincter. This muscle lies in the base of a fissure, and in a chronic condition may be rigid and fibrous from longstanding inflammatory change.

Division of this fibrous band or "pecten" used to be a recognised and successful operation for a chronic fissure—the operation of "pectenotomy" as described by Miles². The fibrous structure that was divided and whose division gave such good results was clearly the thickened lower margin of the internal anal sphincter.

The presence of small numbers of minute glands in the anal sphincter muscles has been recognised since they were first described in 1880 by Hermann and Desfosses³, but no great significance has been attached thereto until more recent years. Usually between six and ten anal glands are found around the anal circumference. Each discharges into an anal crypt in the lining of the anal canal. The glands branch widely into a structure of ramifying ducts, often ending in the longitudinal muscle layer. Recent work by Parks⁴ has re-emphasised the importance of these anal glands and the part they play in the pathogenesis of perianal abscess and fistula-in-ano. Infection in an anal gland may spread downwards to give an acute perianal abscess, or laterally to reach the ischio-rectal space and form an abscess there. Parks suggests that a fistula-in-ano is essentially a sinus secondary to a diseased anal gland. The anal opening of the gland makes it a complete fistula. The inflammatory process probably does not start in a completely normal anal gland; it is very likely that there is a congenital cystic dilatation of the gland, which predisposes it to infection.

Carcinoma of the Rectum: Sphincter-saving Resection

The operation of anterior resection for carcinoma in the upper rectum, with restorative anastomosis of the bowel, preserving the anal sphincters has clearly much to commend it, both as a radical operation to achieve a cure, or as a palliative operation where it is of course important to reduce post-operative morbidity to a minimum in a patient whose life span is already limited by the extent of the spread of his disease. The indications for this operation include both anatomical and

pathological considerations, and a clearer understanding of these factors has made the operation a most valuable one in the treatment of carcinoma of the rectum.

In surgery of the large bowel particular care has to be exercised in the preservation of the blood supply. The distribution of the arteries and the anastomoses between them is perfectly adequate for normal purposes but is not so freely provided in the large intestine as in other parts of the gastro-intestinal tract, so the surgeon must be careful in large bowel resection that he does not devitalise adjacent portions of bowel in removing a length of large intestine with its blood supply. Of particular importance in this connection is the presence of the marginal artery, a vessel formed near to the colon by linking connections between the main arterial radicles. The marginal vessel has been under careful scrutiny in recent years (Griffiths³) and a re-evaluation of the place and importance of this artery in maintaining bowel viability has been made.

Sudek⁶ affirmed that there was a site in relation to the sigmoid colon where the marginal artery was absent. In this situation the lowest sigmoid artery and the superior rectal artery were said to anastomose but poorly—the so-called “critical point” of Sudek. This opinion is now no longer held. The importance of the ability of the marginal artery to supply the distal colon is in connection with restorative resection of the rectum. When the inferior mesenteric artery is ligated, the colon on the proximal side of the anastomosis depends for its viability on the superior mesenteric artery blood brought to the left colon by the marginal artery. The careful preservation of this vessel at operation is clearly essential, but the acid test for the adequacy of the blood supply is still the observation of the state of the intestine at the site in question, in particular as regards its colour and the presence of arterial pulsation in the vessels leading to the part, and their ability to bleed when cut.

If the marginal artery is capable of supplying all the arterial blood the left side of the colon needs, then there is clearly no need to preserve any of the branches of the inferior mesenteric artery that normally supply the splenic flexure, descending and sigmoid colon. There is of course good reason why it is eminently desirable to ligate the inferior mesenteric artery as high as possible. This is that it enables the surgeon to obtain maximum lymphatic gland clearance since carcinoma of the upper rectum spreads upwards by lymphatic pathways, along the line

of the arterial blood supply, to the origin of the inferior mesenteric artery from the abdominal aorta. If a high ligation of this vessel enables a surgeon to obtain glands clear of disease on the resection specimen, it improves the prognosis of his patient. This is brought out by comparing the survival figures of Dukes' C.1 cases (those with lymph gland involvement but with at least one gland free of disease below the highest limit of the resection specimen) and Dukes' C.2 cases (glands involved up to the limit of the excision). A high ligation clearly converts some C.2 cases into C.1 cases, and thereby enhances the prognosis.

Not only has the operator to obtain good clearance above the growth, but also to obtain an adequate clearance below. The neoplasm in the upper rectum tends to spread downwards much less freely however, and the naked eye margin of healthy tissues needs but to be 2" (5 cms.). The residual rectal stump that lies below the level of section relies for its arterial blood on the middle rectal artery. Recent anatomical studies (Boxall, Smart and Griffiths⁷) have demonstrated that this vessel reaches the rectal wall from the side wall of the pelvis at the lowest possible level by coursing over the pelvic floor. Variable branches often travel in the pelvic supporting tissue on the lateral aspects of the rectum, the “lateral ligaments”, but these vessels are inconstant and not important. These are conveniently termed accessory middle rectal arteries, and their division is of no great consequence. What is important however, is that, in mobilising the rectum low down, prior to removing a rectal growth and performing a restorative anastomosis, the middle rectal artery itself must not be sacrificed, or else the viability of the rectal stump is in jeopardy, and the anastomosis may well break down. The fact that a leak at the anastomosis occurs in some 15% of cases emphasises the importance of taking care to avoid any manoeuvres that may endanger the healing of this suture line. For most practical purposes the critical level below which a restorative resection cannot be attempted is 10 cms. from the anal verge. A carcinoma below this level, if it is operable, will need a more radical operation and a sphincter preserving procedure is not a feasible proposition. In a low restorative resection it is customary to employ some type of “safety valve” to decompress the colon proximal to the anastomosis. This may take the form of a temporary transverse colostomy, or a tube caecostomy. The latter has a bad reputation in that it is

said to drain poorly. This is overcome if it is regularly washed out six hourly with a few ounces of saline.

In addition to removing sufficient tissue to obtain a good lymphatic clearance, and enough bowel below the level of the carcinoma, in order to prevent a recurrence of the disease it is important to take steps to minimise local recurrence at the site of the anastomosis. The use of chemical agents topically to destroy malignant cells free in the pelvis or present in the lumen of the bowel is well recognised. In this Hospital the use of mercuric perchloride 1/500, and more recently of a surgical chlorinated soda solution (Dakin's Solution) in this connection has been shown to reduce the incidence of local recurrence.

Local recurrence may occur, of course, after a complete excision of the rectum. Growths of the rectum below the level of the peritoneal reflection are well known for their propensity to spread laterally, and this is of course a further reason for advocating an abdomino-perineal excision of the rectum, since this is a more extensive operation. Carcinoma in the lower third of the rectum has a particularly bad prognosis in this regard, and some surgeons feel that routine post-operative radiotherapy may have a place in the management of patients who fall into this category.

Pelvic Recurrence

Some of the steps that may be taken to prevent a local recurrence of disease have been indicated. The fact remains that local recurrence does occur, and there has been advance in the management of this problem. Pelvic recurrence with involvement of sacrum and sacral plexus usually produces pain, both locally, and in some patients radiating into the leg. The use of radiotherapy for this problem is well established, although bowel neoplasms are not usually particularly radio-sensitive. Severe intractable pain that shows an inadequate response to irradiation and analgesics may require dorso-lateral tratomy for its relief. The use of anti-mitotic drugs for pelvic recurrence after surgery for rectal carcinoma, or for the definitive treatment of the inoperable case is now a well recognised procedure. To obtain the maximum benefit it is best to attempt to obtain a regional effect from the drug. It may be infused into the regional artery that supplies blood to the part concerned. For infusion of the pelvic viscera a convenient method is to introduce a femoral arterial catheter pushed up to the level of the aortic bifurcation under X-ray control. The anti-

mitotic drug is then injected at regular intervals via the intra-arterial infusion. Between doses the patency of the apparatus is maintained by a slow continuous infusion of heparinised dextrose-saline from a height of 10 ft. To prevent unnecessary dissemination of the drug into the lower limbs, a pneumatic tourniquet is inflated on both thighs during the time of each infusion. Using this method a daily dose of 10 mgms. nitrogen mustard is given for a week. The maximum anti-mitotic effect is obtained in the pelvis, principally via the internal iliac arteries. The side effects on the bone marrow become apparent some 8-10 days after the completion of the course, when a leukopenia may develop. After each infusion, nausea with or without vomiting may follow, but this can be controlled with appropriate anti-emetic drugs. While some patients will show clinical evidence of regression, the most valuable result of such a course of intra-arterial chemotherapy is the almost invariable alleviation of the patient's pain. This is normally the most marked symptom of which the patient with a pelvic recurrence complains, and the relief of which is his most pressing need. As an alternative to using nitrogen mustard, in this particular technique good results have also been obtained by employing 5-fluorouracil.

In addition to using chemotherapeutic agents for their anti-mitotic effect on a regional field, they may of course be given systemically. This has been used for cases of carcinoma of the rectum, usually as an adjuvant to surgery in the sense of being given on a long term basis postoperatively. Of special note in this connection is cyclophosphamide, which may be given orally or parenterally for its systemic effect. Used long term in doses of 50 mgms. twice or thrice daily by mouth, there is no doubt that some remarkable results have been obtained, particularly in extending the life span of patients who have had a palliative operation for carcinoma of the rectum and in whom it is known or suspected that they have disseminated malignant disease.

Rectal Prolapse

The management of patients suffering from rectal prolapse has always been a difficult problem. The large number of operations described bears testimony to the magnitude of the problem and to the relative unsatisfactory nature of the results obtained in using these different techniques.

For partial prolapse an operation similar to an haemorrhoidectomy may well be curative.

providing sphincter tone in the anal muscles is good. If however the sphincters are in poor condition, then the Thiersch wire operation is often of value, the circum-anal ring of silver wire acting as a substitute for the feeble sphincter muscles.

The treatment of complete rectal prolapse has been attempted with operations from the perineal end, e.g. by rectosigmoidectomy, which is essentially an amputation of the prolapse. Alternatively the problem can be approached by using an abdominal method, and strengthening or narrowing the opening in the pelvic floor through which the prolapse descends—for example by suturing the Puborectales together (or bridging the gap between them with a darn), either anteriorly or posteriorly in relation to the rectum.

A recent advance in the surgical treatment of rectal prolapse has been the introduction of the Ivalon Sponge Repair operation. The assessment of results so far appears to indicate that its employment has met with success in almost all cases in which it has been used. Professor Wells⁸ suggested the use of Ivalon to fix the rectum by introducing a cuff of this material around the lower rectum at the level before it passes through the pelvic diaphragm. A strong fibrous tissue buttress then forms at this level which prevents the rectum from sliding through the pelvic hiatus and so prolapsing. Ivalon is polyvinyl alcohol sponge, and allows granulation tissue to invade its interstices and so become incorporated in the body tissues. It has been used in various ways in man for repairing hernias and for prosthetic purposes. No side effects have been reported. In the rat, experimentally, sarcoma can be produced, but this has never occurred in man.

The technique of the Ivalon sponge repair operation is relatively straightforward. The rectum is mobilised to below the level of the peritoneal reflection, and the sponge is wrapped around the lower rectum, and anchored in place to the anterior surface of the sacrum with thread sutures. There is but little published work as yet on the results of this operation, but Naunton Morgan⁹ analysed a series of 46 cases which revealed only one patient with a complete recurrence, and two with mucosal recurrences. The improvement in continence is less encouraging, but this is hardly surprising since the majority of these patients are incontinent pre-operatively and many have been so for some years. It seems clear nevertheless that the Ivalon Sponge Repair operation produces results which will make it a very

useful method of treating a most difficult problem and disability.

Crohn's Disease in the Large Intestine

During recent years there has been a growing realisation that Crohn's disease may affect the large intestine as well as other parts of the gastro-intestinal tract. The fact that it may affect the colon was first mentioned (Colp¹⁰) only two years after its original description as a disease entity (Crohn, Ginzburgh and Oppenheimer¹¹). It is now becoming more and more apparent that Crohn's disease of the large intestine is a not uncommon finding, particularly if the possibility is borne in mind. It is likely in fact with many patients who have been diagnosed previously as suffering from an atypical colitis, on re-examination of pathological material and other available evidence, that the correct diagnosis is one of Crohn's disease of the large intestine.

In a review of a small group of cases of large bowel Crohn's disease seen at St. Mark's Hospital (Lockhart-Mummery and Morson¹²), it was possible to divide up cases into three broad groupings. These were, firstly, those with disease diffusely in the large intestine (some of which also had terminal ileal disease), a second group with localised disease (some with stricture formation), and a third group with disease mainly confined to the rectum. The diagnosis of Crohn's disease of the large bowel depends on clinical, radiological and pathological criteria.

The clinical picture of colonic or rectal Crohn's disease, apart from a history of diarrhoea, weight loss, malaise and sometimes rectal bleeding, is that often the patient will present with an anal lesion, such as a fistula. On sigmoidoscopy some patients show a patchy distribution of areas of mucosal hyperaemia or even small ulcers.

A barium enema will indicate the distribution of the disease, and the most striking feature here is the patchy or discontinuous nature of the disease process (as contrasted with ulcerative colitis). The presence of fissure-crack deep ulceration is also a diagnostic point confirming Crohn's disease.

The pathological aspects that are helpful are obtained by examination of operation specimens or of biopsy material taken per sigmoidoscope. The deep fissure ulceration is again evident, and surrounding these ulcers is the typical sarcoid reaction with granulomatous appearances and giant cells present. The treatment of Crohn's disease of the large bowel

may present grave problems, particularly since the disease may recur, and because of its propensity for fistula formation, which may add hazards to surgical procedures that are difficult already. It is of course important in extirpative surgery for this disease to remove all areas of bowel affected—including the normal segments between the so-called "skip" areas. This, when applied to the large intestine, may even at times mean a total procto-colectomy and the construction of an ileostomy. The post-operative recovery and improvement in the general condition of the patient is often very gratifying; at times it can be almost as dramatic as in those patients who have had radical surgery for ulcerative colitis.

REFERENCES

1. MORGAN, C. N., and THOMPSON, H. R. (1956): *Ann. R. Coll. Surg.*, **19**, 88.
2. MILES, E. (1919): *Surgery Gynec. Obstet.*, **29**, 497.
3. HERMANN, G., and DESFOSSÉS, L. (1880): *C.R. Acad. Sci. (Paris)*, **90**, 1301.
4. PARKS, A. G. (1961): *Brit. med. J.*, **1**, 463.
5. GRIFFITHS, J. D. (1956): *Ann. R. Coll. Surg.*, **19**, 241.
6. SUDEK, P. (1907): *Munch. Med. Wschr.*, **54**, 1314.
7. BOXALL, T. A., SMART, P. G. J., and GRIFFITHS, J. D. (1963): *Brit. J. Surg.*, **50**, 399.
8. WELLS, C. (1959): *Proc. roy. Soc. Med.*, **52**, 602.
9. MORGAN, C. N. (1962): *Proc. roy. Soc. Med.*, **55**, 1077.
10. COLP, R. (1934): *Surg. clin. N. Am.*, **14**, 443.
11. CROHN, B. B., GINZBURGH, L., and OPPENHEIMER, G. D. (1932): *J. Am. med. Ass.*, **99**, 1323.
12. LOCKHART-MUMMERY, H. E., and MORSON, B. C. (1960): *Gut.*, **1**, 87.

NEW SPECIMENS ADDED TO THE MUSEUM DURING THE YEAR 1964

Museum No.	Specimen	Clinician
A.383	Polyostotic Fibrous Dysplasia	Dr. Black
A.554	Adamantinoma of Maxilla	Mr. McNab Jones
A.556	"Adamantinoma" of Tibia	Presented by Mr. Farrow
C.10	Spinal Osteophytosis	Dr. Aldren Turner
C.26	Steroid Osteoporosis (Spine)	Mr. Naunton Morgan
E.27	Fibrinous Pericarditis (Uraemic)	Dr. Spence
E.73	Acute Staphylococcal Endocarditis	Prof. Scowen
E.112a	Perforation of Aortic Valve Cusp (old Subacute Bacterial Endocarditis) and Ventricular Septal Defect	Dr. Hayward
E.131	Carcinoid Syndrome (Heart and Liver)	Dr. Hayward
E.148	Cardiomegaly—Idiopathic Cardiomyopathy	Dr. Weitzman
E.173	Myocardial Infarction	Prof. Scowen
F.4a	Coarctation of the Aorta with Intercostal Aneurysm	Mr. Hill
F.12	Syphilitic Aortitis	Dr. Hayward
G.92	Multiple Laryngeal Papillomata	Presented by Dr. A. R. H. Worssam
G.108	Carcinoma of Larynx	Mr. McNab Jones
H.51	Bronchiectasis due to Foreign Body	Mr. Hill
H.119	Bullous Emphysema	Mr. Nash
H.285	Radiation Pneumonitis	Dr. Williams
L.75	Crohn's Disease	Mr. Hunt
L.124	Diffuse Systemic Sclerosis (Colon)	Prof. Scowen
L.126	Pneumatosis Intestinalis	Mr. Todd
L.167	Reticulum Cell Sarcoma of Small Intestine	Mr. Hunt
L.195a	Diffuse Carcinoma of Colon Superimposed on Chronic Ulcerative Colitis	Sir R. Bodley-Scott
L.201	Carcinoma of Sigmoid Colon	Surgical Unit
L.330	Carcinoma of the Rectum	Mr. Tuckwell
M.243	Intussusception, Ileo-ileo-colic, with included Meckel's Diverticulum	Prof. Taylor
N.55	Portal Cirrhosis	Mr. Hunt
N.277	Fibrocystic Disease of the Pancreas	Dr. Franklin
P.82a	Amyloid Degeneration of Spleen	Dr. Black
P.89	Splenic Infarct	Prof. Taylor
P.136	Gaucher's Disease (Composite specimen)	Dr. Harris
P.184b	Subacute (Granulomatous) Thyroiditis	Presented by Mr. W. D. Bedford

P.274	TC.XIV.42	Adrenal Cortical Adenoma	Dr. Cullinan
Q.47		Membranous Glomerulonephritis (Lipoid Nephrosis)	Prof. Scowen
Q.48		Chronic Glomerulonephritis	Dr. Gibb
Q.59		Kidney of Benign Hypertension	Prof. Scowen
Q.70	TC.X.3a	Pyelonephritis (Acute on Chronic)	Dr. Balme
Q.141		Hydroureter, Hydronephrosis and Chronic Pyelonephritis (Obsolete Urethral Valve)	Presented by Mr. Nash
Q.142		Hydroureter, Hydronephrosis and Chronic Pyelonephritis (Ectopic Ureter)	Presented by Mr. Nash
Q.269		Carcinoma of Ureter	Mr. Badenoch
S.130		Seminoma of Testis	Mr. Badenoch
S.154		Pseudofibromatous Nodular Periorchitis	Mr. Badenoch
S.186		Senile Enlargement of Prostate	Dr. Hayward
S.216		Carcinoma of Prostate with Perforation of Rectum	Mr. Nash
T.154		Astrocytic Glioma	Mr. Connolly
V.62		Benign Calcifying Epithelioma (Mallherbe)	Mr. Hunt
W.115		Tubal Gestation	Presented by Dr. C. Keith-Simpson
W.151		Parovarian Cysts	Mr. Bourne
W.297		Haematoocolpos due to Congenital Deficiency of Vaginal Canal	Presented by Mr. Nash
Z.13		Amyloidosis (Heart and Spleen)	Sir R. Bodley-Scott
Z.21		Transfusional Haemosiderosis (Liver)	Dr. Spence
Z.25		Haemochromatosis (Liver and Pancreas)	Mr. Hunt
Z.228		Malignant Mesenchymoma (Retroperitoneal)	Mr. Beattie
TE.119a		Tricuspid Atresia and other Congenital Abnormalities	Dr. Hayward

A SPECIMEN OF PARTICULAR INTEREST

by W. J. Hanbury

Curator of the Pathology Museum

P. 136 GAUCHER'S DISEASE

A composite specimen from a case of Gaucher's disease. The bones shown include sections of vertebral bodies, a fractured left humerus, the sternum and a left femur. The bone marrow is mostly soft and reddish, and there is evidence of thinning and erosion of cortical bone in places. An X-ray photograph of the femora and upper parts of the leg bones is mounted at the back of the specimen. The cut surface of the lung shows a consolidated appearance, and a slice of the liver, which was greatly enlarged, appears much paler than normal. The mesenteric lymph nodes are also enlarged and whitish.

Microscopic Examination

Dense infiltrations of characteristic large, pale, Gaucher cells are seen in sections of all the bones and other tissues shown. In many places there is erosion of both cancellous and cortical bone, as well as replacement of much of the marrow. The lung is almost completely consolidated by enormous numbers of Gaucher cells, which are present within the lung tissue itself as well as in the alveoli, where many have disintegrated. In the liver the parenchyma has been extensively replaced.

From a girl, aged 3, who had been admitted to hospital first at the age of 15 months for the investigation of a squint. She was found to be anaemic with a large liver and spleen, and a tentative diagnosis of gargoylism had been made, but at the age of 20 months a bone-marrow biopsy revealed typical Gaucher cells. Splenectomy was carried out at the age of 22 months, and the spleen is preserved as specimen No. P. 136c. Her condition steadily deteriorated, and death was finally due to respiratory embarrassment and cardiac failure (see *A Case of Gaucher's Disease in an Infant*, by M. F. Hudson, *March Journal*, p. 112).

RECENT PAPERS BY BART'S MEN

- ABERCROMBIE, G. F. Thrombo-angiitis obliterans of the spermatic cord. *Brit. J. Surg.*, 52, 1965, pp. 632-633.
- AJIKEN, D., see Cattell, W. R., and others.
- *ANDERSON, A. B., (and others). Clinical chemistry in Denmark and Sweden. *Proc. Assoc. clin. Biochem.*, 3, Feb., 1965, pp. 181-192.
- APTHORP, G. H., see Birkett, D. A., and others.
- *BACII, F. Rehabilitation and life and sickness assurance. *Achter internationaler kongress für lebensversicherungs medizin*, Luzern, 15-19, June, 1964, pp. 78-83.
- *, (and Kay, A.) Subfertility before and after the development of rheumatoid arthritis in women. *Ann. rheum. Dis.*, 24, March, 1965, pp. 169-173.
- *BADENOCH, A. W., (with Smith, J. C.). Carcinoma of the bladder simulating chronic cystitis. *Brit. J. Urol.*, 37, Feb., 1965, pp. 93-99.
- BAMFORD, J. K., and others. Villous adenoma of the rectum with electrolyte depletion, diabetes and hypogonadism. *Postgrad. med. J.*, 41, April 1965, pp. 186-189.
- BENTALL, H. H., (and others). Surgical treatment and post-operative haemodynamic studies in hypertrophic obstructive cardiomyopathy. *Brit. Heart J.*, 27, 1965, pp. 585-594.
- , (with others). Anticoagulants and mitral valvotomy. *Brit. Heart J.*, 27, 1965, pp. 618-624.
- BERNARD, H., see Speers, R., Jr., and others.
- BIRKETT, D. A., and others. Bilateral upper thoracic sympathectomy in angina pectoris: results in 52 cases. *Brit. med. J.*, July 24, 1965, pp. 187-190.
- BIRNSTINGL, M. A. (with others). Prognosis in Raynaud's phenomenon after sympathectomy. *Brit. med. J.*, April 10, 1965, pp. 962-964.
- BIRT, C. The effects of the addition of oxygen to various emergency inflating devices. *Anaesthesia*, 20, 1965, pp. 323-328.
- , and Cole, P. Some physiological effects of closed circuit halothane anaesthesia. *Anaesthesia*, 20, 1965, pp. 258-268.
- BORRIE, P. The cutaneous complications of lymphatic deficiency. *Trans. St. John's Hosp. Derm. Soc. (Lond.)*, 50, 1964, pp. 129-131.
- , and Fenton, J. C. B. Buzzer ulcers. *Proc. roy. Soc. Med.*, 58, August, 1965, pp. 623-4.
- *BOULTON, T. B., and Hurt, R. L. Modified perfusion apparatus for use with disposable oxygenators. *Lancet*, May 22, 1965, p.1100.
- , and Marshall, R. D. Ward emergency equipment. *Anaesthesia*, 20, 1965, pp. 345-351.
- BRAIMBRIDGE, M. V. Median sternotomy. *Lancet*, March 13, 1965, p. 585.
- , (and Keith, H. I.) Oesophago-bronchial fistula in the adult. *Thorax*, 20, 1965, pp. 226-233.
- *BRITTON, B. J. Experience in regional hospitals. *Lancet*, March 13, 1965, pp. 597-598.
- BROOKE, B. N. The use and misuse of laboratory services in surgical practice. *Proc. roy. Soc. Med.*, 58, 1965, pp. 505-506.
- *BROWN, D. A., and Quilliam, J. P. Observations on the mode of action of some central depressant drugs on transmission through the cat superior cervical ganglion. *Brit. J. Pharmacol.*, 23, 1964, pp. 257-272.
- , and Quilliam, J. P. The effects of some centrally-acting drugs on ganglionic transmission in the cat. *Brit. J. Pharmacol.*, 23, 1964, pp. 241-256.
- , and others. Observations on the spasmogenic action of the α -toxin of *staphylococcus pyogenes* on isolated intestinal muscle. In *Recent advances in the pharmacology of toxins: Proceedings of the 2nd international pharmacological meeting, held in Prague, August, 1963*.
- BUCKLE, R. M. Exertional (march) haemoglobinuria: reduction of haemolytic episodes by use of sorbo-rubber insoles in shoes. *Lancet*, May 29, 1965, pp. 1,136-1,138.
- , Blood pyruvic and α -ketoglutaric acids in thiamine deficiency. *Metabolism*, 14, 1965, pp. 141-149.
- , and others. Death due to cerebral vasospasm. *J. Neurol. Neurosurg. Psychiat.*, 27, 1964, pp. 440-444.
- BUNTING, J. S. The anatomical influence in megavoltage radiotherapy of carcinoma of the maxillary antrum. *Brit. J. Radiol.*, 38, April 1965, pp. 255-260.
- *BUTLER, H. The reproductive biology of a streptirrhine (*Galago senegalensis senegalensis*). *Int. rev. gen. exp. Zool.*, 1, 1964, pp. 241-296.
- , (and Adam, K. R.). The structure of the allantoic placenta of the Senegal bush baby (*Galago senegalensis senegalensis*). *Folia primat.*, 2, 1964, pp. 22-49.
- CAPENER, N. Surgical implants (Editorial). *J. Bone Jt. Surg.*, Feb., 1965, pp. 3-5.
- , Biological engineering and prosthetic apparatus (Editorial). *J. Bone Jt. Surg.*, 47B, Aug, 1965, pp.291-294.
- CASEWELL, M. C., see Brown, D. A., and others.
- CASSON, F. R. C. Gamblers anonymous. *Family Doctor*, June, 1965, pp. 344-345.
- CATCHPOLE, B. N., (with others). Ileus: an experimental study. *Brit. J. Surg.*, 52, May, 1965, pp. 381-386.
- CATTELL, W. R., and others. Diuretic therapy of primary lymphoedema. *Lancet*, Aug. 14, 1965, pp. 312-315.
- CHAMBERLAIN, D. A., see Birkett, D. A., and others.
- COLE, P., see Birt, C. and —.
- *CRADOCK-WATSON, J. E. The production of bacteriocines by proteus species. *Zbl. Bakt. I. Abt. Ref.*, 196, 1965, pp. 385-388.
- CUNNINGHAM, G. J., with others. Vein grafts. *Lancet*, July 17, 1965, pp. 109-111.
- CURWEN, M. P., see Stark, J. E., and others.
- *DALY, M. DE BURGH, (and Scott, M. J.). A method for independent and reversible exclusion of changes in activity of the carotid chemo-receptors

- and baroreceptors: studies on systemic hypoxia. *Quart. J. exp. Physiol.*, 50, April, 1965, pp. 127-141.
- , (and others). Reflex respiratory and peripheral vascular responses to stimulation of the isolated perfused aortic arch chemoreceptors of the dog. *J. Physiol.*, 177, 1965, pp. 300-322.
- DARMADY, E. M. The use and misuse of laboratory services in surgical practice. *Proc. roy. Soc. Med.*, 58, 1965, pp. 506-507.
- DAVIDSON, J. K., (and Welch, J. D.). The diagnosis and management of pheochromocytoma. *Scot. med. J.*, 10, Feb., 1965, pp. 49-55.
- DAWSON, J. B. Modern urine testing. *Med. J. Aust.*, 1, 52nd year, Jan. 23, 1965, pp. 115-116.
- , A new urinary densimeter. *Lancet*, March 20, 1965, p. 635.
- , The miniaturization of glass electrodes. *J. clin. Path.*, 18, 1965, pp. 386-387.
- DE MOWBRAY, R. R. Addison's disease with vitiligo, Addisonian anaemia, primary hypothyroidism and diabetes mellitus. *Proc. roy. Soc. Med.*, 58, Aug, 1965, pp. 578-9.
- *DISCOMBE, G., (with Essigman, W.). Some observations on general practice. *Lancet*, March 6, 1965, pp. 540-542.
- *DORMER, A. E. The management of bacterial endocarditis. *J. Indian med. Prof.*, 11, Nov., 1964, pp. 5,119-5,127.
- *DOWIE, L. N. Functional dysphonia. *Speech Path. Therap.*, 8, 1965, pp. 18-22.
- *DU BOULAY, G. H., and Jackson, D. C. Cranial angio-tomography. *Clin. Radiol.*, 16, April, 1965, pp. 148-153.
- , see Buckle, R. M., and others.
- FENTON, J. C. B., see Borrie, P., and —.
- FISK, G. R. Management of injuries to the fingers. *Curr. Med. Drugs.*, 5, 1965, pp. 4-14.
- *FLETCHER, C. M. Pneumococci. In, Abercrombie, G. F., and McConaghey, R. M. S., eds. *The encyclopaedia of general practice*, 1964, pp. 580-585.
- *—, Clinical types of chronic obstructive lung disease in London and in Chicago: a study of one hundred patients. *Am. Rev. resp. Dis.*, 90, July, 1964, pp. 14-27.
- *—, American emphysema and British bronchitis. *Am. Rev. resp. Dis.*, 90, July, 1964, pp. 1-13.
- *FRANKLIN, A. WHITE. Paediatrics 1984 (Part II): President's address. *Proc. roy. Soc. Med.*, 58, 1965, pp. 392-394.
- GALBRAITH, H. J. B., see Bamford, J. K., and others.
- *GARROD, L. P. Antibiotics in food. *Practitioner*, 195, 1965, pp. 36-40.
- *GLENISTER, T. W. Ultrastructure of earliest embryonic endometrial contacts and attachments *in vivo* and *in vitro*. *J. Anat.*, 98, 1964, p.470.
- *—, On the origin of mesenchyme in the rabbit blastocyst wall. *J. Anat.*, 99, 1965, p. 203.
- GRUFFITHS, J. D., see Salisbury, A. J., and others.
- GUYER, P. B., see Harper, R. A. Kemp, and —.
- HARPER, R. A. Kemp, and Guyer, P. B. The radiological features of thymic tumours: a review of sixty-five cases. *Clin. Radiol.*, 16, April, 1965, pp. 97-105.
- HART, C. General practitioner's forum: the changing pattern of rural practice. *Practitioner*, 195, 1965, pp. 83-90.
- HAYWARD, B. J., see Lewis, C. A., and others.
- HAYWARD, G. W., see Birkett, D. A., and others.
- HECTOR, Miss W. E. Called on to plan? *Nursing Times*, July 30, 1965, pp. 1,037-1,038.
- HEATH, R. B., see Stark, J. E., and others.
- *HOLMAN, E. Sir William Osler, William Stewart Halsed, Harvey Cushing: some personal reminiscences. *Surgery*, 57, April, 1965, pp. 589-601.
- HORTON, E. W. Biological activities of pure prostaglandins. *Experientia*, 21, 1965, p.113.
- *HOWELL, T. H. Problems of respiratory disease in old age. *J. Indian med. Prof.*, 11, Jan., 1965, pp. 5,206-5,208.
- *—, Some causes of invalidism in hemiplegic patients. *Practitioner*, 194, 1965, pp. 805-807.
- *—, Geriatrics and geriatric nursing. *Brit. Hosp. J. and Social Service Rev.*, July 23, 1965, pp. 1,397-1,399.
- HOWKINS, J. The problem of infertility. *Practitioner*, 194, April, 1965, pp. 498-504.
- HUBBLE, D. The underweight and the overweight child. *Brit. med. J.*, May 15, 1965, pp. 1,293-1,295.
- HUGH-JONES, K., (and others). Gonadal dysgenesis with unusual abnormalities. *Arch. Dis. Childh.*, 40, 1965, pp. 274-279.
- *HUNT, A. H. Portacaval anastomosis. In, *The craft of surgery*, edited by Cooper, 1964, pp. 780-789.
- *—, Immediate repair of intrapelvic rupture of the urethra by synchronous abdominal and perineal approach. In, *Ibid.*, pp. 1,413-1,415.
- *—, Technique de l'anastomose portocave. *J. Chir. (Paris)*, 89, 1965, pp. 257-267.
- , Compression of the common bile-duct by an enlarging collateral vein in a case of portal hypertension. *Brit. J. Surg.*, 52, 1965, pp. 636-637.
- IND, J. E., see Jenkins, G. C., and others.
- JACKSON, D. C., see Du Boulay, G. H., and —.
- JENKINS, G. C., and others. Arsenic poisoning: massive haemolysis with minimal impairment of renal function. *Brit. med. J.*, 10 July, 1965, pp. 78-80.
- JOEKES, A. M., (and Rellan, D. R.) Radioactive renography in diagnosis and treatment of acute obstructive renal failure. *Lancet*, July 17, 1965, pp. 96-99.
- JONES, F. AVERY. Gastric and duodenal ulcer. *J. Indian med. Assoc.*, 12, 1965, pp. 5,301-5,304.
- , (with others). Motility of the pelvic colon. Part IV: Abdominal pain associated with colonic hypermotility after meals. *Gut*, 6, April, 1965, pp. 105-112.
- KERLING, N. J. M. History of food and diet in St. Bartholomew's Hospital, London. *Nutrition*, 19, 1965, pp. 61-63.
- *KEYNES, M. The clinical diagnosis of primary hyperparathyroidism. *Geriatrics*, 20, Jan., 1965, pp. 65-77.
- , Simple and complicated hypertrophic pyloric stenosis in the adult. *Gut*, 6, 1965, pp. 240-252.
- KINMONTH, J. B. Some problems of the lymphatics and the skin. *Trans. St. John's Hosp. Derm. Soc. (Lond.)*, 50, 1964, pp. 121-122.
- KOK, D'A., (with others). Determination of the serum iron-binding capacity. *J. clin. Path.*, 18, 1965, pp. 453-455.
- LACY, D., and Lofts, B. Studies on the structure and function of the mammalian testis. Cytological and histochemical observations after continuous treatment with oestrogenic hormone and the effects of F.S.H. and L.H. *Proc. roy. Soc. Series B.*, 162, April 13, 1965, pp. 188-197.

- LEHMANN, H., (with others). A new haemoglobin in a Thai family. A case of haemoglobin Siriraj- β Thalassaemia. *Brit. med. J.*, June 19, 1965, pp. 1583-1585.
- LEWIS, C. A., and others. Saturated hydrocarbons in skin surface lipids. *Brit. J. Derm.*, 77, 1965, pp. 303-308.
- LOFTS, B., see Lacy, D., and —.
- *LONGLAND, C. J., (and Ives, J. C.). Endemic staphylococcal sepsis in a surgical unit. *Scot. med. J.*, 10, 1965, pp. 10-20.
- , (with others). Assessment of postoperative renal function. *Lancet*, May 8, 1965, pp. 978-980.
- MACKENNA, R. M. B., see Lewis, C. A., and others.
- MCKINNA, J. A., see Salisbury, A. J., and others.
- MACLEAN, R., and others. Effect of monoamine-oxidase inhibitors on the concentrations of 5-hydroxytryptamine in the human brain. *Lancet*, 1965, July 31, pp. 205-208.
- MALPAS, J. S., (with others). Studies on the serum iron-binding capacity. *J. clin. Path.*, 18, 1965, pp. 446-452.
- MARSHALL, R. D., see Boulton, T. B., and —.
- MORGAN, C. NAUNTON, see Salisbury, A. J., and others.
- MURLEY, R. S. The use and misuse of laboratory services in surgical practice. *Proc. roy. Soc. Med.*, 58, 1965, pp. 503-505.
- *NOBLE, M. I. M., (and others). Studies on the maximum acceleration of blood in the ascending aorta. *J. Physiol.*, 177, 1964, pp. 68-69P.
- O'GRADY, F., see Speers, R., and others.
- *PAINTER, N. S., (and others). Effect of morphine, prostigmine, pethidine, and probanthine on the human colon in diverticulosis studied by intraluminal pressure recording and cineradiography. *Gut*, 6, February, 1965, pp. 57-63.
- PARE, C. M. B. Treatment of depression. *Lancet*, May 1, 1965, pp. 923-925.
- , see also Maclean, R., and others.
- *PARRISH, J. A. Fiedler's myocarditis. *Brit. Heart J.*, 27, 1965, pp. 458-461.
- *—, (with Rawlins, D. C.). Intestinal mucosa in the Zollinger-Ellison syndrome. *Gut*, 6, 1965, pp. 286-289.
- PERKINS, E. S. Steroid-induced glaucoma. *Proc. roy. Soc. Med.*, 58, 1965, pp. 531-533.
- POTTER, J. M. Complications of head injury. *Nursing Times*, July 2, 1965, pp.892-3.
- QUILLIAM, J. P., see Brown, D. A., and —.
- , see also Brown, D. A., and others.
- REES, LINFORD, L. Physique, personality and disease. *Nursing Mirror*, July 23, 1965, pp. x-xvi.
- RODGERS, H. W., (with Johnston, G. W.). Management of bleeding oesophageal varices when portal systemic shunt is inadvisable, with particular reference to the use of balloon tamponade and sclerosing injections. *Ulster med. J.*, 33, Dec., 1964, pp. 110-115.
- , (with Johnston, G. W.). Treatment of ammonia intoxication in rhesus monkeys by total colectomy. *Brit. J. Surg.*, 52, April, 1965, pp. 304-308.
- , (and Johnston, G. W.). Treatment of chronic portal-systemic encephalopathy by colectomy. *Brit. J. Surg.*, 52, 1965, pp. 424-426.
- *—, (with others). Extrahepatic portal-venous obstruction. *Brit. J. Surg.*, 52, Feb., 1965, pp. 129-139.
- , (with others). Portacaval shunt performed during pregnancy. *J. Obstet. Gynaec. Brit. Emp.*, 72, April, 1965, pp. 292-295.
- *ROSS, Sir JAMES PATERSON. Great teachers of surgery in the past: William Girdling Ball (1881-1945). *Brit. J. Surg.*, 52, March 1965, pp. 161-164.
- ROTDLAT, J. Physical aspects of particle beam therapy. *Proc. roy. Soc. Med.*, 58, March, 1965, pp. 159-160.
- ROXBURGH, R. A., (with others). Diverticulitis coli complicated by diffuse peritonitis. *Brit. J. Surg.*, 52, May 1965, pp. 354-357.
- SALES, J. E. L. (with White, A. G.). Thrombosis of the internal jugular vein in congestive cardiac failure. *Brit. med. J.*, June 5, 1965, pp. 1473-1475.
- SALSBURY, A. J. Transfusion of blood fractions. *Practitioner*, 195, 1965, pp. 193-200.
- *—, and others. Circulating cancer cells during excision of carcinomas of the rectum and colon with high ligation of the inferior mesenteric vein. *Surg. Gynec. Obstet.*, 120, 1965, pp. 1266-1270.
- SARMU, V. Congenital abnormalities of the foetus and their association with genital tract malformations in the mother. *Brit. J. clin. Pract.*, 19, 1965, pp. 375-380.
- SCOTT, A. Some aspects of the comparative biochemistry of human keratins. *Brit. J. Derm.*, 77, 1965, pp. 291-302.
- SCOTT, P. J. Bladder paralysis in cauda equina lesions from disc prolapse. *J. Bone Jt. Surg.*, 47B, 1965, pp. 224-235.
- SCOTT, Sir RONALD BODLEY. Oral ulceration: medical aspects. *Proc. roy. Soc. Med.*, 58, 1965, pp. 453-455.
- SEDDON, Sir HERBERT, (with Leftert, R. D.). Infra-clavicular brachial plexus injuries. *J. Bone Jt. Surg.*, 47B, Feb., 1965, pp. 9-22.
- SHAND, D. G. The mode of action of drugs blocking ganglionic transmission in the rat. *Brit. J. Pharmacol.*, 24, 1965, pp. 89-97.
- SHOOTER, R. A. see Speers, R., and others.
- SILVERSTONE, J. T. The long-term management of obesity in general practice. *Brit. J. clin. Pract.*, 19, 1965, pp. 395-398.
- *SIMON, G. The dangers of X-rays to the physiotherapist. *Physiotherapy*, 51, March 10, 1965, p. 84.
- , (and others). Bronchial atresia of the left upper lobe. *Thorax*, 20, 1965, pp. 214-218.
- SLEIGHT, P. Dissection of the aorta with pericardial tamponade: successful relief of tamponade. *Brit. med. J.*, May 1, 1965, pp. 1165-1167.
- , (with others). The diagnosis and treatment of aortic stenosis complicated by heart block. *Brit. Heart J.*, 27, 1965, pp. 560-565.
- SMITH, B. Changes in the enzyme histochemistry of skeletal muscle during experimental denervation and reinnervation. *J. Neurol. Neurosurg. Psychiat.*, 28, 1965, pp. 99-103.
- , see also Buckle, R. M., and others.
- *SPEERS, R. JR., and others. Increased dispersal of skin bacteria into the air after shower-baths. *Lancet*, Feb. 27, 1965, pp. 478-480.
- STANLEY, P. Pulmonary aspergillosis occurring in a patient receiving large doses of prednisolone. *Tubercle, Lond.*, 46, 1965, pp. 227-231.
- STARK, J. E., and others. Infection with influenza and parainfluenza viruses in chronic bronchitis. *Thorax*, 20, 1965, pp. 124-127.
- TAYLOR, G. W. see Cunningham, G. J., with others.
- , see also Cattell, W. R., and others.

- THEOBALD, G. W. (Discussion) Results from the perinatal mortality survey of 1958. *Proc. roy. Soc. Med.*, 58, 1965, p. 306.
- , Cortical pain image or pain-sensitivity panel. *Brit. med. J.*, 1965, Aug. 7, pp. 330-333.
- THORNE, N. Cosmetics and the dermatologist: cleansing creams and lotions. *Brit. J. clin. Pract.*, 19, April, 1965, pp. 245-246.
- , Cosmetics and the dermatologist: shaving soaps and creams. *Brit. J. clin. Pract.*, 19, 1965, pp. 423-424.
- TRAPNELL, D. H. A simple sterile method of filling the bladder. *Brit. J. Radiol.*, 38, 1965, pp. 553.
- , (and Jackson, D). Bone and joint changes following burns. *Clin. Radiol.*, 16, April, 1965, pp. 180-186.
- , The use of X-rays as a research instrument. (Summary). *Proc. roy. Soc. Med.*, 58, March, 1965, pp. 162-163.
- *TUCKWELL, E. G. Peptic ulcer. In, Abercrombie, G. F. and McConaghey, R. M. S. eds. *The encyclopaedia of general practice*, 1964, pp. 425-435.
- , see also Birkett, D. A., and others.
- *TURNER, P., (with others). Influence of urinary pH on excretion of amphetamine. *Lancet*, Feb. 6, 1965, p. 303.
- YAKTAN, C. K. Sophian concept of aetiology of toxæmia of pregnancy. *Nursing Mirror*, 119, March 19, 1965, pp. 5-7.
- VICKERY, C. M., (and others). Experimental small-artery grafts in dogs treated with immunosuppressive drugs. *New Engl. J. Med.*, 272, Feb. 18, 1965, pp. 325-331.
- WARD, H. W. C. Disordered vertebral growth following irradiation. *Brit. J. Radiol.*, 38, 1965, pp. 459-464.
- *WATERWORTH, P. M., (and Chabbert, Y. A.). Studies on the 'carry-over' of antibiotics using the cellophane transfer technique. *J. clin. Path.*, 18, 1965, pp. 314-316.
- *WATTS, R. W. E., (with others). Clinical, physiological and biochemical studies of a patient with xanthinuria and pheochromocytoma. *Amer. J. Med.*, 37, 1964, pp. 839-861.
- *WENDELL-SMITH, C. P., (and others). Glia-nerve fibre relationships in mammalian optic nerve. *J. Anat. Lond.*, 99, 1965, pp. 1-11.
- WICKHAM, J. E. A. Spontaneous rupture of a dorsal carpal artery. *Brit. J. Surg.*, 52, March, 1965, pp. 237-239.
- *—, (and Sharma, G. P.). Endogenous ammonia formation in experimental renal ischaemia. *Lancet*, Jan. 23, 1965, pp. 195-198.
- *WIGGLESWORTH, R. Some medical and educational aspects of minimal cerebral dysfunction. *Special Education*, 54, 1965, pp. 2-5.
- *WILLIAMS, I. G. Treatment of malignant disease in childhood. *Proc. roy. Soc. Med.*, 58, Aug., 1965, pp. 609-614.
- WINSTONE, N. E., (and others). Biliary peritonitis: a hazard of polyvinyl chloride T-tubes. *Lancet*, April 17, 1965, pp. 843-844.
- WITTS, L. J., (with others). Hypochromic anaemia. *Quart. J. Med.*, 34, April 1965, pp. 145-161.
- , see also Malpas, J. S., with others.
- WYATT, A. P., see Cunningham, G. J., with others.
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