

## INDEX TO VOL. LIX.

	PAGE
Rahere and the missing book	315
Rahere Choir	80, 164, 281
Recent Papers by Bart's Men	77, 160, 259, 355
Record reviews	233, 269, 295, 327
by Dulcie V. Coleman	294
by E. G. Wooster	128
Reproduction in goldfish	371
Reviews 29, 58, 82, 128, 170, 235, 269, 300,	329, 357
Rotblat, J.: Linear accelerator at Bart's	218
Portrait	264, 332
Rotunda '55, by 'Medical Davy'	351
Rowing Club	228, 234, 268, 298, 354, 359, 387
Rowland, Penry; French bayonets	213
Rowswell, Elizabeth. Portrait	348
Roxburgh, A. C., by R. M. B. MacKenna.	4
Portrait	361, 385
Rugby Club 2, 27, 81, 120, 166, 169, 279, 326, 353,	361, 385
Rycroft, P.: Zermatt, 1955	74
Sailing Club	125, 168, 234
Scott, P. J., and Wood, C. B. S.: Case of	320
hyperparathyroidism	210
Scott, R. Bodley. Portrait	164
Shaw, J.: The Rahere Choir	373
Silverstone, J. T.: Impressions of Mexico City	146
Simple life, The, by J. D. Parker. Poem	82, 354
Soccer Club	174
Social psychiatry, by J. P. Crawford	293
Soltan, H. K. V.: Rewards in practice. Corres.	342
Some aspects of medicine in Canada, by G.	359
Ffrench	324, 339
So to speak 14, 55, 69, 112, 159, 233, 293, 324, 339	243
Spence, A. W.: The hormonal basis of	210
personality	210
Portrait	277
Sport 27, 55, 81, 120, 166, 204, 234, 263, 268, 298,	325, 353, 385
Stallard, H. B.: J. D. Martin-Jones	15
Statistics, medicine and Bart's, by M. P. Curwen	362
Still, R. J.: Tuberculosis appeal. Corres.	261
Stokes, M. V.: Charterhouse—the medieval	
foundation	

### EDITORS

JANUARY - JUNE: A. J. SALSBUURY.

JULY - DECEMBER: G. R. KINROSS WRIGHT.

	PAGE
Exhibition of Hospital archives	250
Students' Union	98, 350
Sunset, by J. D. Parker. Poem	38
Tennis Club	235, 268, 325
Things ain't what they used to be, by Dulcie V.	294
Coleman	362
Thomas, Duncan: The old guard counter-attacks	55
student apathy. Corres.	195
Thornton, J. L. Corres.	11
Orthopaedic surgeons at St.	
Bartholomew's Hospital, London	
Time lag, by R. M. B. MacKenna	378
Treatment of renal calculus by partial nephrec-	88
tomy, by R. Poyntz-Wright	334
Treatment of the hemiplegic patient by physio-	309
therapy, by Miss Warcham	209
Turban tumours, by L. J. Chalstrey	211
Vaughan, Margaret, by St. D.	86
Vicarage Club	335
Vick, R. M.: Bowlby as I knew him	33
View Day	39
View Day Ball	68
Visick Memorial	184
Ward, V. G.: Sir Anthony Bowlby. Corres.	86
Ward Shows, Christmas, 1954. Photograph	215
Wareham, Miss: Treatment of the hemiplegic	47
patient by physiotherapy	65
Week with a London G.P., by D. H. Bergel	372
Welfare state, by J. D. Parker. Poem	371
Wessex Rahere Club	114
Why I baptized Michael Scott, by J. D. Parker	27, 387
William Gilbert of Colchester, by A. G.	363
Dawrant	
Williams, I. G.: Radiotherapy as a career in	128
medicine	74
Wilson, C. C. Carus. Portrait	
Reproduction in goldfish	
Wilson, Sir Erasmus. Portrait	
Women's Hockey Club	
Wood, C. B. S.: Traditions overboard. Corres.	
see also Scott, P. J., and	
Wooster, E. G.: Record reviews	
Zermatt, 1955, by P. Rycroft	

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LIX

JANUARY 1955

No. 1

## GOLDFISH

*"These (the fishes) were made out of the most entirely ignorant and senseless beings, whom the transformers did not think any longer worthy of pure respiration . . . and instead of allowing them to respire the subtle and pure element of air, they . . . gave them a deep and muddy medium of breathing."*

PLATO.

The fountain in the Square is justly famous. Numerous verses have been written about it, it has regularly appeared in photographs and sketches, and frequently is used as the central motif in Christmas cards, when other inspiration is lacking. However, how much thought is given to its patient inhabitants, the goldfish of St. Bartholomew's Hospital? They serve, in their way, to add as much to the character of the Hospital as does the fountain, and they have a long and honourable history.

The colony at present consists of one large and five medium-sized goldfish. They are lively, of good appearance, and seem to be of the common variety, *Carassius auratus*. They are accompanied in the fountain by some smaller water creatures of an indeterminate nature.

Little need be said about the five smaller goldfish—they were introduced about three years ago to restock the dwindling population of the fountain, and have flourished ever since. However, some tribute must be paid to the large goldfish, who epitomises the venerable Hospital in which he dwells. He was originally purchased, along with several others, from Selfridges some 26 years ago by a doctor in the Speech Therapy Department. These appear to be the first goldfish to have been placed in the fountain. Although the others have since fallen by the wayside, the veteran remains in the best of health. Within his lifetime he has survived many trials which might well kill a lesser animal.

Several times the fountain has been frozen solid, but it must be appreciated that gold-

fish "thrive equally well in tropical and temperate climates." After an air-raid during the last war, numerous incendiary bombs were recovered from the fountain, but they did not seem to have disturbed the goldfish. A more severe test was to come two years ago, when a blue dye was placed in the fountain on the eve of View Day. The goldfish were removed in the morning with a startling cyanosed appearance, but with no signs of discomfort. The fountain was cleaned and the fish returned, but unfortunately one succumbed to the effects of the detergent. The introduction of hordes of tadpoles in an attempt to disturb the peace of the rightful tenants of the fountain was probably the supreme indignity.

The only official duty which the Hospital performs for the goldfish is the cleaning out of the fountain. This is regularly effected by the porters. Feeding is left to the generosity of teaching staff and students. It does not appear that any keen physiologist has yet trained the fish in Pavlovian fashion to appear for food on the ringing of a bell. A member of the teaching staff regularly inspects the goldfish for fungus, and, if this appears, the fish are removed by the porters and thoroughly scrubbed. One must praise the sensible and unassuming way in which these animals are tended.

It is often said that it is the "little things" which matter, and which are most readily noticed; and one cannot help thinking that these goldfish have their own small part in the widely heterogeneous nature of St. Bartholomew's Hospital.

### Rugger Dance

Saturday evening, December 4th, was marked by the third of the season's Rugger Dances. These dances, or "hops" as they are more familiarly known, have proved more popular than the organisers at first dared to hope. At each of the three occasions this term the hostel has been swarming with merrymakers taking advantage of all that a dance for half-a-crown offers. The spot prizes have afforded yet another attraction, and the excellence of Michael Hackett as M.C. is surely appreciated by everyone. It is also gratifying to note that many of the members of the week's visiting team manage to attend, and enjoy, the dances. If only some of the lower hospital rugger sides could emulate the success of the hops the club could be said from all points of view to have taken a new lease of life.

### The Boiler House

One of the smaller Cambridge colleges, well known for its table and its cellars, is said, like an iceberg, to be vaster and more spacious below the surface than above it. This Hospital is another of these. I cannot definitely say that there are underground routes between Cardiology and St. Bart's the Less or from the Central Registry to the Nurses' Home, but if there are I would no longer be surprised.

I missed my way when looking for the R.S.Q. Billiard Room. In a maze of passages with strangely marked doors at frequent intervals I met a man—shaving, and apparently an engineer—who very agreeably showed me round.

Mere doctors have little idea of what a mechanical age we live in. The Dunn Laboratory has nothing on this. Strange and powerful engines stood about in a maze of piping among pumps and dynamos of every size, some angrily in motion, others in sinister silence. In one room great vanes blew hot air down tunnels and in another gauges indicated the levels of CO<sub>2</sub> in hot water, which even my guide couldn't explain. Successive rooms opened out and we were among the boilers and furnaces. There was nothing diminutive about these, only they seemed very deep down. The glare from the fires and a pale electric light bulb lit the gloom. "Hades," the engineer remarked knowingly.

I have sometimes wondered at the oppressive heat and moving fans in the S.T.C. Now

I understand. Deep below, the ingenious architects of more spacious days provided us with an almost model heating system and spared us that bane of hospitals, the all-dominating boiler house and chimney.

### The Fountain Club

*R.B.P. writes:*

In this number of the *Journal* appears an outrageously long autobiography in eleven stanzas of a member of the Fountain Club, stimulated to this lyrical paean of triumph by his promotion to its chairmanship after thirty years' membership.

The Fountain Club was founded in 1919 by a group of old Bart's men, whose appetite for conviviality could not be appeased by the too infrequent, and too little selective opportunities of meeting their friends and contemporaries at Decennial Club dinners. The members meet for dinner in London once a month from October to June. Their numbers are limited to thirty-four town, and twenty country, members, with a rather smaller number from the Armed Services. The numbers have been maintained by constant recruitment: some of the founders are still with us, while new members continue to join up to the present year. At one of our recent dinners we were somewhat taken aback when a member claimed to have joined the Hospital in 1884. He was, however, found to be the son of a famous member of the Staff and historian of the Hospital, and was born in the Dean's quarters in the year claimed.

The Club has had many meeting places, but has been comfortably settled for many years now at Kettners Restaurant in Soho, that scene of nineteenth century Edwardian revelry. During its thirty-odd years' existence the Club has accumulated a respectable display of "plate" and furniture, mostly the gifts of retiring Masters. The "lordly chair," which enthrones the Master, is perhaps the most munificent of these: confronting it is a bronze replica of the Bart's Fountain by the sister of the Founder (of the Club, not of the Hospital), and facing the Clerk is a graceful statuette by the sculptor of that other well-known fountain in Piccadilly Circus. The Master's Mace, well adapted for maintaining order, is a formidable object of the type so often described as "crowners' quests" as a "round blunt instrument," and is suitably surrounded by an assortment of old pewter bleeding bowls. But never at our most hotly debated discussions, such as a

recent one on a proposal to admit ladies to an annual cocktail party, have members' blood pressures reached a point at which recourse was necessary to these purely ornamental safety valves.

Once a year we invite a guest of honour, and the list of these comprises a galaxy of distinguished stars, writers and scholars, ambassadors and Lord Mayors, soldiers and sailors, architects, scientists and Emeritus members of the Hospital Staff. Such names, taken at random, as Rudyard Kipling, A. P. Herbert, Sir Roger Keyes, Sir Henry Dale, Sir Anthony Boulby and Lord Horder give an indication of the quality of the men who have been kind enough to sit around The Fountain with us.

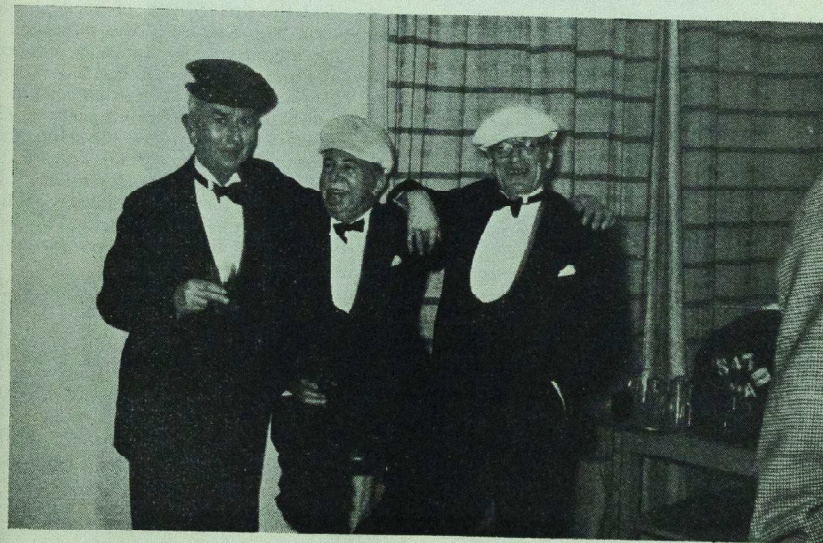
Our ordinary dinners are quite informal; the minutes are flippantly recorded by the

Clerk, and the years have accumulated many albums of somewhat faded post-prandial wit, some (perhaps mercifully) lost in the London Blitz.

The object of the Club is good fellowship, and all that is demanded of a member is that he should be what Dr. Johnson described as "a clubbable man," with an affection for and loyalty to the traditions that centre round The Fountain of our ancient Hospital.

This is not, Mr. Editor, a prospectus touting for new members. Our condition is flourishing, and our prescribed number of members is at present complete. It is merely explanatory of the allusions to The Fountain Club, which from time to time do creep into your respected columns.

### Candid Camera.



*The Three Musketeers*

## A. C. ROXBURGH, 1886 - 1954

by DR. R. M. B. MACKENNA

To anyone who has worked in Bart.'s and who has any imagination, the Square is a very special place. It is remembered with affection in the far places of the world and wherever the men or women of Bart.'s congregate. It was there, one day in 1946, that Roxburgh said goodbye. The wind was rustling the leaves so that some had fallen and were blowing across the paving: a weak sun was casting shadows round the fountain. "I am sorry," he said, "to leave Bart.'s. I've had a good time here: being emeritus isn't the same thing." For him it was the end of a chapter in a volume so packed with experience that even those who knew him quite well did not realise the fullness of his venturings.

Roxburgh was born at Valparaiso, Chile, on August 17, 1886: he was named Archibald Cathcart. In 1894 he was in Liverpool attending Greenbank School: he remained there for about two years and then his family moved to West Kirby in Cheshire. From 1900 to 1905 he was at Charterhouse and thence passed to Trinity College, Cambridge, where he was an exhibitor and gained a first-class in the Natural Science Tripos. Having gained the senior entrance scholarship he entered Bart.'s in 1909, clerked for Dr. Norman Moore, and dressed for Mr. A. Bowly, and followed the custom of the times by taking the final examination of the Conjoint Board in 1912. A year later he took the degrees of M.B., B.Ch.(Camb.). In 1912 he held the appointment of Pathological Clerk to Dr. Garrod, and in 1913 was Resident Anaesthetist for three months: from 1913-14 he was House Physician to Dr. Archibald Garrod, and during this time he and Miss Powell (Sister Mark) designed the temperature charts which Bart.'s has used ever since.

His career was interrupted by the First World War. On August 1, 1914, he became a Surgeon-Lieutenant in the Royal Navy. He was not released until 1919. In 1916 he married Mary, daughter of Lieutenant-Colonel J. A. Lambert of the Queen's Bays.

When Roxburgh returned to London, he became Chief Assistant to the Skin Department in 1919 and Hon. Casualty O.P. Surgeon at St. Paul's Hospital for Skin and Venereal Diseases: in the same year he obtained the diploma of M.R.C.P. (Lond.).

From 1920-25 he held the appointment of Assistant Medical Officer in the Special Department. In 1921 he took the degrees of M.A., M.D.(Camb.), his thesis being "Gonorrhoea as seen in Public Clinics."

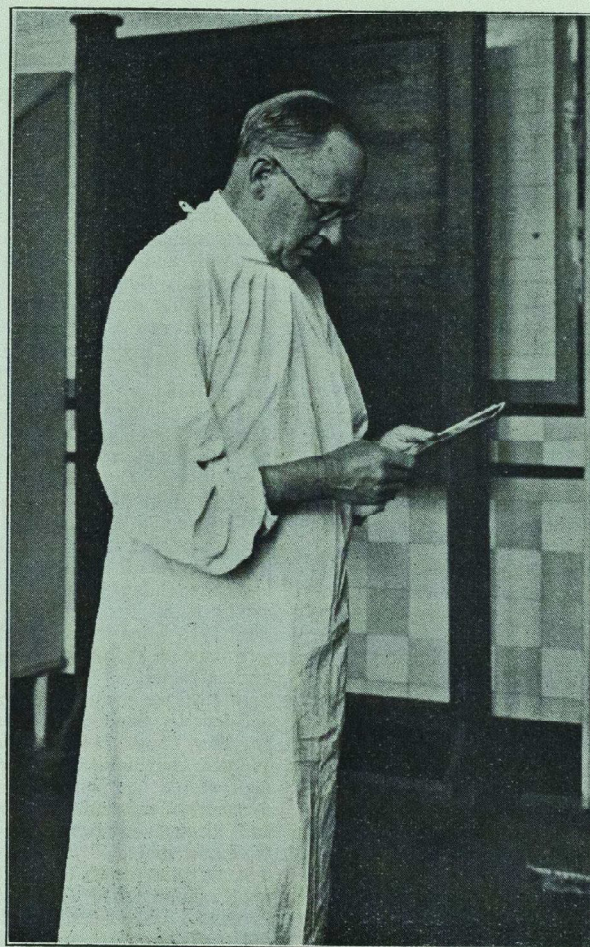
In 1924 he became Assistant Physician to St. John's Hospital for Diseases of the Skin and was soon promoted to the full honorary staff. In 1925 he visited Vienna and studied dermatology under Professor Kyrle, and in the same year became Dermatologist to the Royal Masonic Hospital. In 1927 Roxburgh became Assistant Physician to the Skin Department and a year later succeeded Dr. Adamson as Physician to that Department. Besides these appointments he held others at, e.g., Wembley Hospital and the Hampstead Hospital for Children. Somehow he found time to become Dean of the London School of Dermatology (1924-30), and to be Assistant Editor of the British Journal of Dermatology and Syphilis (1926-30), Hon. Secretary to the Section of Dermatology of the Royal Society of Medicine (1926-38) and Editor of the British Journal of Dermatology and Syphilis (1930-38).

In 1932 the first edition of his textbook, "Common Skin Diseases," was published.

Of the honours which came to him, one may note the diplomas of F.R.C.P.(Lond) in 1929, the corresponding Membership of the Danish Dermatological Society (1930) and similar Membership of the Hungarian Dermatological Society (1935) and of the Belgian Dermatological Society (1946). He was President of the Dermatological Section of the Royal Society of Medicine (1943-45) and President of the British Association of Dermatology (1946).

During the Second World War he added to his responsibilities by becoming Consultant in Dermatology of Sector 3 in the E.M.S.

Many a Bart.'s man will remember the tall, white-gowned figure moving from case to case, talking, discussing, teaching, invariably courteous (every married woman he addressed as Ma'am), never ruffled, dealing efficiently with twice as many cases as most of us can deal with in a session. He will be remembered by many patients who returned to their homes comforted that they had obtained one of the best possible opinions concerning their difficulties: by



many practitioners who studied the brief notes written in his own hand which usually gave as much information as other men's more prolix communications: by his colleagues, for the soundness of his opinion, his quiet humour, his interest in golf, photography and archeology, and by Bart.'s men particularly because he set and demanded a standard in the highest possible tradition of a hospital which has very great traditions.

In 1949, when on a photographic expedition on Cairngorm, he suffered a coronary thrombosis: thereafter he took life a little

more leisurely but was still much involved in private practice. He died in his consulting room in Harley Street, on Friday, December 3; his ashes were interred a few days later in Hampstead Parish Churchyard.

To his wife and daughter, and to his three sons (all of whom are Bart.'s men) we offer our sincere condolences at this time; our sorrow, being less personal, cannot be matched with theirs, but—without presumption—we may share with them the inspiration of his memory.

## THE CATERING COMPANY, 1910 - 1953

by C. E. MORRIS

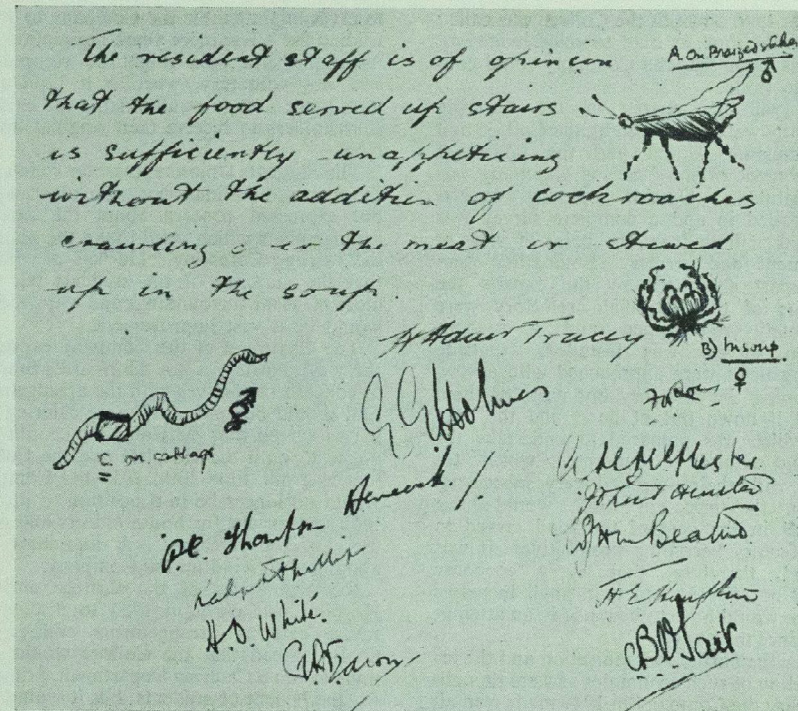
On January 1st, 1954, there passed quietly away an old, if not always respected, servant of the College and Hospital. There were few mourners. On this date the College Catering Company passed into the hands of the liquidator.

The reasons for the final liquidation of the Catering Company were primarily economic. The rising costs of labour and raw materials made it increasingly difficult to produce food profitably within the price range of most of the customers and while the record of the Catering Company was not particularly distinguished it had always attempted to carry out the function of providing food within very narrow financial limits to the best of its ability; during two world wars it never failed to produce food of some sort. It has been a matter of curiosity to many why such a Company functioned at all in the precincts of the Hospital and to appreciate this it is necessary to go back to 1843 on which date students first became resident and when "The Collegiate Committee entered into an arrangement with Messrs. Staples of the Albion Tavern for the supply of various provisions requisite for the students, considering it better in the first instance that the object should be tried with as little outlay as possible, under an arrangement of supplying the students with all necessary articles for domestic use, without their being purchased by the Hospital, thus affording an opportunity to the Committee to satisfy themselves with the exact cost of the establishment upon which they might found the charges to the students." . . . "The next point for consideration which the Committee viewed with very considerable anxiety was the appointment of a gentleman to the Office of Warden who would be resident in the Establishment and have the superintendence of the resident students, taking charge not only of the various matters that had been provided for their residence but to watch carefully their moral conduct. In this anxiety the Committee requested the assistance of the Medical Officers who were unanimous in recommending Mr. James Paget, Lecturer in Physiology at the Hospital, as a gentleman eminently qualified for the appointment."

It would appear that no particular provision was made for students who were not resident and it must be presumed that they patronised the local inns and restaurants. The establishment did not always run smoothly and it is of interest to note in the Complaints Book covering the period 1885 to 1910 that the matter of quality, quantity and price was as big a problem then as in more recent times. The Complaints Book notes . . . "24.7.1885. I had four eggs up this morning one of which contained a young chicken." This at least emphasised Bob Sawyer's comment that there is "Nothing like dissecting to give one an appetite." "5.11.1885. The price of faggots being a ½d. is it right that a student resident in the College should be charged 1d.?" "5.10.1904. It is suggested that the sugar be separated from the black beetles. This was overlooked the day before yesterday." These arrangements for providing food continued until 1910 when it was decided that the employment of an outside caterer had become unsatisfactory.

In 1910 the members of the Hospital staff decided to finance a Catering Company governed by an Executive Committee. Dr. Wilmot Herringham was appointed Chairman of the Committee which consisted of members of the staff, who were shareholders, and elected representatives of the Junior Staff and students. It was to be known as "St. Bartholomew's Hospital College Catering Company, Ltd." and Miss Virtue was appointed Lady Superintendent. The main object of the Company was to provide meals at a reasonable cost and without any intent of making large profits and it was agreed that any profits that accrued after the payment of expenses and the payment of the dividend, which was restricted to 5 per cent., should be paid-over to the Students' Union.

No very great improvement in the quality of the food was noticed and the pattern of complaints appear to be similar to those between 1885 and 1910. "30.8.27. I suggest the stock of eggs be sold and only the post-war variety used. I have seen four specimens this week which are certainly not later than '07." "26.9.28. The resident staff are of



opinion that the food served is sufficiently unappetising without the addition of the following animals . . ." "12.9.33. The cold beef with which I was served was green in parts. I complained and was told that it was due to the light." "28.6.32. May I suggest that it is scandalous to charge 6d. for a slice of stuffed marrow ¾" thick when the cost of a 15" marrow is only 6d."

In 1935 the Medical College opened the pre-clinical school in Charterhouse Square and the Catering Company was called upon to start another restaurant to cater for the staff and students there. The Board of the Catering Company realised that the effect of this new restaurant would be to increase the overhead expenses for supervision and domestics without increasing the takings and they expressed grave fears as to the ultimate outcome of this new venture. The results of the first year's trading made it perfectly

clear that their fears were justified. A substantial loss was made, aggravated by the fact that the pre-clinical school was keeping University terms and for many weeks of the year the expenses had to be met and no income was available. The slight profits which were made in the refectory in Smithfield were used to bolster up the refectory in Charterhouse. This problem was solved temporarily on the outbreak of war in 1939 when the pre-clinical school was evacuated to Cambridge and the Charterhouse refectory closed.

The Smithfield refectory continued to function during the war years with very little financial success, but at least it kept its head above water. On the return of the pre-clinical school to Charterhouse in 1946 catering was again started and in a short time the losses became a serious embarrassment to the budget.

From 1946 onwards the College was called upon from time to time to make contributions in order that the Company could continue to trade.

In 1948 the shares of the Catering Company were purchased by the College and the Students' Union and the board of management of the Catering Company was reconstituted. Outside catering experts were called in and a complete survey was undertaken both from the point of view of equipment and service. Emanating from the report submitted by the experts the kitchens of the Smithfield refectory were completely re-equipped and a modern canteen servery was installed. Outside catering firms were approached with a view to running the refectory but most of them turned it down out of hand and the only firm which was prepared to undertake the catering required a guarantee, which, together with their proposed very substantial rise in the price of food, would have resulted in the cost of the food served in the refectory becoming prohibitive. It was decided, therefore, that every economy should be effected and that small increases in price would have to be made in an attempt to balance the budget.

After the partial reorganisation and the introduction of such economies as were thought necessary the Company in 1949 made a small profit. In 1950, however, the ever mounting tide of costs produced a substantial loss and the College was called upon to provide further financial assistance. In March, 1952 the responsibility for providing lunches in Charterhouse Square was transferred to the College Hall. The relief of this burden from the Catering Company did not, however, substantially alter the total financial position, as by this time both refectories were making losses. The Board were very concerned with the financial position and reviewed the circumstances which were largely responsible for these losses. The Board felt that the conditions under which the Catering Company was then trading were such that future profits would be improbable. The decline in the student numbers, combined with unstable prices and greatly increased wages were largely responsible for this state of affairs and although the Company had exercised every economy it would not be possible to balance the accounts in the future without greatly increasing the prices. The Board felt that although the present liquid

reserves might enable the Company to go on trading for a few more years liquidation was inevitable, but then might be compulsory and not voluntary, whereas if liquidation took place now it would enable the existing shareholders to receive their original investment.

The Students Union representative felt that the proposed liquidation was the obvious one, but expressed concern about the catering arrangements which would take the place of the existing Company. He was of opinion that the majority of the students felt that more pleasant surroundings and warmer food would be a vast improvement.

The Chairman of the Company expressed the view that it was not the Board's function to concern themselves with the arrangements that should be made for future catering and it was agreed that the Company should give notice to both the Hospital and the College that as from June 30th, 1954 the Company would no longer be in a position to provide food and service for house officers and other users of the refectory. A liquidator was appointed to wind up the Company.

Representatives of the College and the Hospital met early in 1954 to discuss the future catering arrangements and it was finally agreed that the College would continue to run a Catering Department, primarily for the benefit of students, but it would also provide lunches and teas for registrars and certain other people working in the Hospital. Agreement was also reached on a major scheme of redecoration and re-equipment, which will include covering the existing tiled walls with plaster and paint, laying a new floor and the installation of a modern lighting circuit.

It is also proposed to refurnish with small tables, this will make available a further 25 seats, and as the Senior Medical Staff have been provided with their own dining room and, in consequence, will not be using the refectory, more space will be available at lunch time.

To carry out this plan of redecoration and re-equipment it will be necessary to close the refectory for approximately 12 weeks and it will be closed as from January 3rd, 1955. During this period arrangements will be made to accommodate as many people as possible in the refectory in College Hall; that some inconvenience will occur is inevitable but it is hoped that the final result will justify the closing down of the service during this period.

## M.F.C.

by R.B.P.

*On being inducted into the chair, the new Master of the Fountain Club reveals his clinical history.*

When I was a lad of tender years  
I studied all the prospects of the best careers ;  
The medical profession seemed the one to choose,  
And the Hospital I picked on was Bartholomew's.  
I picked so wisely from the lucky tub  
That now I am the Master of the Fountain Club.

I sat in the Rooms in a dirty white coat,  
And Cunningham's Anatomy I conned by rote ;  
My Anatomy professors were the best in Town,  
And I learned my Physiology from Langdon Brown.  
My keenness the examiners seemed loth to snub—  
And now I am the Master of the Fountain Club.

I emerged in the wards, and served a term  
As a clerk in the Herringham and Dropsy firm ;  
I practised percussion, and I learned to cope  
With that awkward apparatus called a stethoscope :  
I percussed so firmly with rub-a-dub-dub  
That now I am the Master of the Fountain Club.

Though surgeons should be born, not made,  
One has to be apprenticed to the butchers' trade—  
A retainer of ' The Baron ' I next became,  
And Surgical Asepsis was my constant aim :  
My finger nails so carefully I learned to scrub  
That now I am the Master of the Fountain Club.

I now turned to Labour, and did " one month's hard "   
Delivering multiparæ with no holds barred :  
' Mackenzies ' introduced me to a Mrs. Brown,  
And I actively encouraged her in bearing down ;  
And many a City mother owed her new-born cub  
To an embryonic Master of the Fountain Club.

On leaving Bart's — as alas! one must—  
I now became afflicted with a wanderlust;  
I got myself entangled in the first World War  
As a regular Lieutenant in the Doctors' Corps.  
We managed so effectively the Huns to drub—  
That now I am the Master of the Fountain Club.

The years rolled by, and now and then  
I encountered in the Services some old Bart's men;  
I learned of the existence in a Soho pub  
Of a famous institution called the Fountain Club.  
I bribed the Clerk, and I paid my sub.  
And became a humble member of the Fountain Club.

Perhaps I ought to mention that from time to time  
I've indulged the harmless hobby of composing rhyme;  
This hobby horse I rode so hard  
I became a sort of acting unofficial 'Bard':  
But a humble Bard — ay! there's the rub —  
Is a long way off from Master of the Fountain Club!

For years I sat "below the salt"—  
My infant ambition had not learned to vault!  
It was in fact a sensitive and shrinking plant  
Content to be completely insignificant:  
But I sedulously watered this wilting shrub,  
And now I am the Master of the Fountain Club.

The famous Masters came and passed;  
Till the unexpected miracle occurred at last—  
By some black magic of Beezelbub  
I found myself the Master of the Fountain Club—  
The butterfly emerged from the lowly grub,  
And now I am the Master of the Fountain Club!

So new boys all pray don't despair  
Of your chances of attaining to this lordly chair;  
If you wonder how these honours are distributed,  
Here's a tip that comes directly from the Fountain head—  
Be civil to the Clerk, and punctual with your sub.  
And you all may be Masters of the Fountain Club!

---

*The Journal wishes all its readers a  
Happy New Year*

## TIME LAG

by DR. R. M. B. MacKENNA

It is, one hopes, salutary to write an essay on the time-lag which all too often occurs between the first publication of an observation and the general recognition of the validity and importance of that discovery. In Medicine three or four examples come to mind and it is with these that this paper is concerned.

Bismuth is an element which has had an odd medical history which was well told by Hochradel (1928). It was not known to the Greeks or Romans. Basil Valentine, a German monk with a knowledge of alchemy, referred to it in 1450 as "wismut", and characterised it as a metal. Zedler in 1732 reported favourably on the use of bismuth inunctions, salves and plasters: he used an oil containing the metal for the treatment of cancer and fistula. Until the latter part of the eighteenth century bismuth salts were believed to be poisonous, and were scarcely used for internal administration. Odier of Geneva in 1803 was the first to advocate the use of a bismuth salt (the sub-nitrate) for gastro-enteritis; he believed it to be an infallible remedy for gripe, but he prescribed it in one grain doses with 10 grains each of magnesia and sugar. The new remedy fell into disrepute when Kerner (1829) published a paper concerning a case in which bismuth nitrate had been administered and the patient had died with the symptoms of metallic poisoning. Some half-dozen similar accounts were published but in 1841 Trousseau showed that these cases had died as the result of arsenic impurities in the bismuth. Thereafter, better methods of purification having been adopted, bismuth came to be recognised as a standard remedy for gastro-enteritis. The history of the medical use of bismuth so far is one in which the metal could not for many years be employed medically because the ancillary of chemical purification was incompetent to provide the physician with an uncontaminated product; It seems however that there was definitely a time-lag in its employment for the treatment of syphilis, for Goodman and Gilman (1941) state that although it "was first tried in human syphilis in 1889 it was not until many years later that the value of this metal was established." In

1916 Sauton and Robert investigating spirochaetosis of fowls considered that tartro-bismuthate of sodium would be of use in the treatment of syphilis, but it was not until 1921 that Sazerac and Levaditi published their first paper which was destined to launch "bismuth" as a standard remedy for the treatment of the malady. The time-lag here was some 32 years.

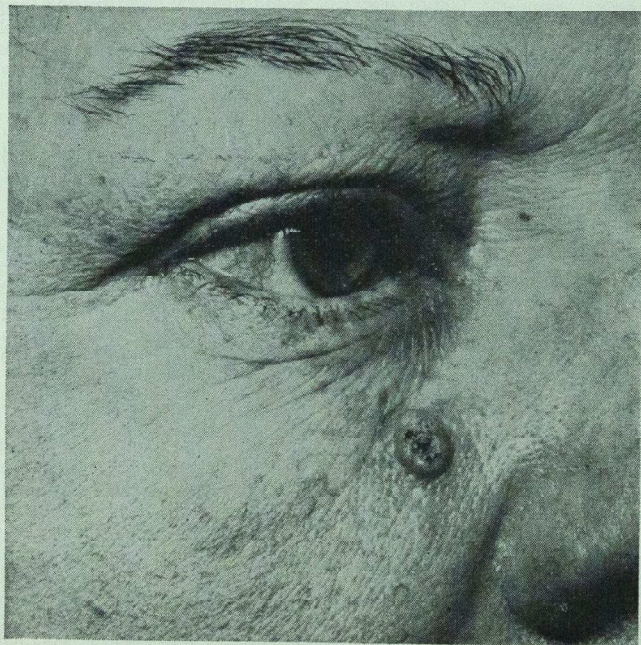
The reader will note that many years elapsed between the recognition of bismuth as a chemical element and its application to medical purposes. The same thing, although the time-lag was shorter, occurred with D.D.T. which was first synthesised in 1874. Its toxicity to insects remained unsuspected until 1939 or 1940. In 1942 the British Military Attache at Geneva called the attention of our Government to the product which was being manufactured by the Geigy Company of Switzerland. The Director of Hygiene at the War Office was quick to realise the importance of the information particularly as he was concerned with the health of troops in countries where malaria and typhus were endemic. The German General Staff, although they were geographically in a much better position than we were to keep abreast of Swiss enterprise, appeared entirely to neglect the discovery: their allies, the Japanese, might well have been grateful if their own or the German Military Attache had realised the importance of D.D.T. Again there was a certain time-lag before we were able to issue the compound to hygiene and anti-malarial units: but the major time-lag was about 66 years.

The discovery of Penicillin was announced by Fleming in 1929 but it was not until 1940 and 1941 that its unusual properties were revealed when the Oxford workers succeeded in producing a stable extract of the active principle, and demonstrated by animal experiment and clinical use that penicillin belongs to what was then regarded as a rare class of drug — a true chemo-therapeutic agent. Jeffrey (1945) has stated that "it is a remarkable tribute to the original laboratory workers that, long before the drug was first used on any human patient, almost all the essential facts as regards the types of

infections likely to benefit and the dosage and technique of administration . . . had been worked out in the laboratory."

Difficulties in making the product on a commercial scale were overcome with remarkable skill, nevertheless the transfer from laboratory scale production to factory production caused some delay and in 1943 the Army Medical Department Bulletin stated that "supplies — of penicillin — are increasing though still limited by technical difficulties of production and purification. Generous allocations are made to the army as material becomes available but there is not yet sufficient penicillin for general use." From 1929 until 1943 represents a lag of 14 years; it might have been much longer had research not been stimulated by war.

In 1936 MacCormac and Scarff published a very short paper of some 500-600 words concerning a benign tumour which they named "Molluscum Sebaceum". It has since been called Kerato-acanthoma and also Molluscum pseudo-carcinomatousum. This



*Molluscum Sebaceum*

cutaneous lesion has certain similarities with squamous-cell carcinoma and it seems likely that many cases previously diagnosed as epithelioma and dealt with as such were in fact examples of this benign lesion. Fourcres and Whittick (1953) stated that up to the time of their communication it had been the subject of only four papers, all by British authors. Certainly it was not until some two years ago that dermatologists, radiotherapists and surgeons woke to the realisation that molluscum and epithelioma had to be carefully differentiated, because — at the lowest estimate — the treatment of the two conditions is essentially different. Further they realised that Molluscum was the commoner lesion.

In regard to molluscum sebaceum the time-lag can be reckoned as 16 years which is somewhat similar to that which occurred with penicillin.

*Mollusca* is latin (first declension) for a soft walled nut, and although *Molluscum* (second declension) means the branch of a

tree (perhaps of the maple tree) the present author believes that the first word is regarded by etymologists as being the source from which the medical term "Molluscum" (e.g. molluscum contagiosum) is derived, but would not be surprised if some one with greater latinity attacks him concerning this. Be that as it may, a fully developed molluscum sebaceum has some slight suggestion of a soft walled nut the base of which is implanted in the skin. Most of the lesion appears to be clothed with normal skin but the upper part shows a rough, irregular, papilliform surface.

It is generally agreed that there are three stages in the evolution and spontaneous devolution of the tumour. The initial lesion is a papule which grows rapidly. In about 6 weeks the tumour is fully formed. It is then 1-2 cm. in diameter and raised  $\frac{1}{2}$ -1 cm. above the skin surface. For a further 6 weeks the nodule remains as it is, except that it may become softer and flatter. Then retrogression commences and it disappears slowly, leaving a scar. The whole process is completed in 4-6 months. The proximal lymphatic glands are not enlarged.

MacCormac and Scarff regarded the central area of the face as the site of election; there have been reports of lesions occurring elsewhere.

Diagnosis depends on the history, the appearance, and the histo-pathology. Both the clinician and the pathologist require a good deal of experience to differentiate between epithelioma and molluscum sebaceum. Ablation, curettage, followed by cauterization of the base, or radiotherapy are the recognised methods of treatment.

Finally the following story may perhaps be included in this small series.

For many years physiologists, dermatologists and others lamented that perfusion experiments which have yielded such important knowledge concerning the intermediary metabolism of the kidneys, liver, thyroid, intestines and adrenal glands — are not possible in the mammalian skin because the integument is supplied by small arterial branches of a deep cutaneous arterial plexus and there is no area of skin sufficiently large which is supplied by one single artery.

In 1938, however, Malmejac and Desanti called attention to the fact that the skin of the upper hind limb of the dog is readily detached and receives its arterial supply from a distinct isolated saphenous artery; this

made it possible to study cutaneous circulation in the area of dog skin by cannulating the saphenous artery and vein.

Thirteen years later, Feldberg and Patton noted a somewhat similar arrangement in the cat. Their report contains no reference to Malmejac and Desanti's work.

So far as dermatology was concerned, however, it was not until February 1954 that a report was received confirming the original observation in the dog and that widespread recognition was suddenly given to the importance of the finding.

Malmejac and Desanti found the saphenous artery in dogs in 50 dissections and were unable to find an analogous artery in man. Kjaersgaard (1954) has now confirmed this original observation and has given the following details concerning the operation: under anaesthesia (intravenous nembutal) the medial aspect of the upper hind limb is shaved and an incision made parallel but 2 cm. distal to the groin. This incision extends from the anterior to the posterior border of the limb. Incisions are now made down the borders of the limb past the knee joint to the upper third of the leg. An area of skin about the size of a man's palm is thus mapped out. The upper half of the skin is detached from the subcutaneous tissue by a slight pull; the saphenous artery, vein and nerve are seen embedded in this tissue; the branches given off from the lower parts of the artery and vein supply the detached skin area. These vessels are dissected free, ligated and cut distally to the ligation midway between knee and groin. Occasional small branches to muscles are ligated; oozing from skin edges is controlled by coagulation or ligatures. Dissection proceeds from above downwards until the area below the knee is reached. The saphenous vessels supply the skin and vessels of the lower leg so that they have to be ligated and the skin flap is cut off 2 cm. below the knee.

Immediately after removal of the skin, it is fixed with clamps and rubber bands on a supporting frame and placed in an incubation box under constant temperature and humidity. Cannulae (hypodermic needles No. 18 and 20) are inserted into the upper parts of the saphenous vessels and perfusion is immediately begun. Because the lower parts of these vessels have been ligated the blood will be forced to circulate through the cutaneous branches and return through the accompanying venous system of the same area.

Kjaersgaard used heparinized dog blood for perfusion and has conducted experiments for more than three hours.

The preparation of skin thus described may be employed in studying different aspects of skin metabolism e.g. (1) the fate of material added to the arterial blood may be studied by analysis of the venous blood; (2) material added to the arterial blood may be carried to the skin by diffusion, secretion or excretion through glandular or epidermal activity and may be recovered there either unchanged or in the form of metabolites; (3) percutaneous absorption can be studied by applying

material to the cutaneous surface and analysing the venous blood; Kjaersgaard believes that such studies can most easily be carried out with the use of radio-active tracers.

The time-lag in the last example is 16 years. The reader is invited to draw his own conclusion from these eventful histories; the author would like merely to suggest to research workers that they might be well advised to study the literature of their speciality published some 15 years ago if they want to discover some really good subject to investigate.

#### REFERENCES:—

- Feldberg, W., and Patton, W. D. M. *J.Physiol.*, 1951, **114**, 490.  
 Fleming, A. *Brit.J.exp.Path.*, 1929, **10**, 226.  
 Fouraeres, F. A., and Whittick, J. W. *Brit.J.Cancer*, 1953, **7**, 58.  
 Goodman, L., and Gilman, A. *The Pharmacological Basis of Therapeutics*, 1941, New York:  
 Hochradel, J. *Munch.Med.Woch.*, 1928, **75**, 177.  
 Jeffrey, J. S. *Medical Annual*, 1945, Bristol, John Wright & Sons Ltd.  
 Kerner, J. *Heidelb.Klin.Ann.*, 1929, Vol. 5.  
 Kjaersgaard, A. R. *J.invest.Derm.*, 1954, **22**, 135.  
 MacCormac, H., and Scarff, R. W. *Brit.J.Derm. & Syph.*, 1936, **48**, 624.  
 Malmejac, J., and Desanti, E. *C.R.Soc.Biol. Paris*, 1938, **127**, 542.  
 Odier, L. *Manual of Pract.Medicine*, Geneva, 1803.  
 Sauton, B., and Robert, A. E. *Ann.Inst.Pasteur*, 1916, **30**, 261.  
 Sazerac, R., and Levaditi, C. *R.Acad.Sci.*, Paris, 1921, **172**, 1391.  
 Trousseau, A. *Traité d. Thérap. et de Mat. Med.*, Paris, 1841, **2**, 773.  
 Zedler, J. H. *Grosses Universal Lexikon aller Wissenschaften v. Kieneste*. 1732-1750, 64.

#### SO TO SPEAK . . .

##### *On a Neurological Round:*

She saw her doctor who advised her to consult you, sir—she then became weak in the legs.

## STATISTICS, MEDICINE, AND BART'S

by M. P. CURWEN

A recent editorial in the *JOURNAL* attributed the foundation of the science of statistics to a certain Professor Achenwall, who lived in Göttingen 200 years ago. In fact, Dr. Achenwall is remembered only as the earliest recorded writer to have used the word "statistics" in more or less its present meaning. Both the word and the science have a history of much more than two centuries. To the Elizabethans a "statist" was one versed in affairs of state, perhaps a civil servant, and in any case capable of handling figures.<sup>1</sup> The science of statistics, which is essentially the science of counting, is as old as civilisation; the censuses we read of in the Bible were statistical investigations in precisely the same way as are present-day censuses. We have no information of any application of statistics to medicine in antiquity, but presumably Caesar knew roughly how many of his legionaries were disabled by sickness. In this country the earliest body of medical statistics is usually considered to be the Bills of Mortality; in the reign of Henry VIII all the parishes in London were required to render returns showing the numbers of burials each week. The figures were given under two diagnostic headings, "plague" and "other," thus providing a valuable index of the prevalence of a disease which was endemic in London for so many years, and enabling the nobility and gentry to escape to their country seats when life in the capital became too hazardous.

But it was not until the nineteenth century that the statistical approach was generally recognised as having anything to offer to medicine as a science. It is just over a hundred years since the whole machinery of death registration was instituted, and William Farr was appointed medical adviser to the Registrar General with the task of analysing year by year the data derived from death certificates. In the field of public health the story of John Snow and the cholera epidemic of 1854 is too well known to need repeating. In the hospital world Florence Nightingale was among the first to recognise the importance of statistics.

Coming back from the Crimea in 1856 she was soon to discover that conditions in civil hospitals were often little better than in the military hospitals abroad. If matters were to be improved the facts must be known; and facts meant statistics.

It was largely as the result of Florence Nightingale's campaign that the Treasurer of this Hospital appointed Dr. G. N. Edwards as Registrar in 1860. The Treasurer's preface to Edwards's first *Statistical Tables*, which has already been quoted in these pages, provides such an admirable statement of aims that I give it in full:

In the year 1859 application was made to me, as Treasurer, for statistical information regarding the patients received into *St. Bartholomew's Hospital*. I very much regretted my inability to comply with the request to the extent required, from want of sufficient data. After much careful consideration of the matter, I saw how extremely important it was that this Hospital should be in a condition to furnish not only to the Governors, but to the Medical Profession and Society at large, the important facts of Vital Statistics which such an Institution can alone afford. This could only be done to the fullest extent by a skilled and competent officer. Accordingly I at once brought the subject before the Governors, who most readily assented to the appointment of a Registrar, whose first year's work and experience is now placed in their hands, and doubtless they will be gratified with the amount of information conveyed, and the admirable manner in which Dr. Edwards has performed his duty, the subject demanding his constant watchful attendance. Large as is the information afforded, yet the next Report will be fuller, as it is intended that the occupations in life of the patients, as well as the duration of time each remained in the Hospital, and the positive number of operations performed under Chloroform, with their results, shall be given.

In conclusion, I desire to direct the attention of the Governors to the fact that, whereas the mortality in the Hospital during the year was 623, no less than 82 of this number died within twenty-four hours after their admission.

WILLIAM FOSTER WHITE,

*Treasurer.*

Dr. Edwards, aged only 30, was elected assistant physician in the same year that he was appointed Statistical Registrar (for this is how he describes his title). In 1865 the

<sup>1</sup>In *Hamlet* (Act V, sc. ii) we are told that statisticians considered it bad form to have good handwriting: did this apply also to doctors?



*St. Bartholomew's Hospital Reports* first appeared and Edwards became Joint Editor. The first volume contains an account of his duties; they were evidently fairly onerous, for he seems to have been personally responsible for the upkeep of the registers kept in each ward, in which were recorded the diagnostic and other details concerning each patient. Indeed, in 1863, it was found necessary to appoint an additional registrar to deal with the surgical side; otherwise, he writes, he would have had no time for any other work at all. At this time the *Reports* also contain much that is of statistical interest. The volume for 1869 opens with an obituary of Edwards, who had died that year, having been elected physician two years earlier. The compilation of the statistical tables is recorded as being his most important contribution to medicine. A few pages later we find a most interesting analysis of the midwifery statistics of the Hospital for the years 1862-1868. During this period the maternal mortality was 21 out of 5,734 deliveries<sup>2</sup> (it is not stated how many of these took place inside the Hospital). But perhaps most interesting of all, although the subject is not strictly medical, is an article by Sir James Paget, in which he gives an account of a follow-up of a thousand of his students. Of these, he writes:

- 23 achieved distinguished success.
- 66 .. considerable success.
- 507 .. fair success.
- 124 .. achieved very limited success.
- 56 failed entirely.
- 96 left the profession.
- 87 died within twelve years of commencing practice.
- 41 died during pupillage.

The "died in practice" group includes William Palmer, the poisoner, who was sent to the gallows for murder; of him Paget wrote, somewhat savagely, "He was an idle, dissipated student, cursed with more money than he had either the wisdom or the virtue to use well". Less comprehensible to us today is the account of an elaborate investigation undertaken to show that the mortality rate after amputations was no worse among townsmen than countrymen and no worse at Bart.'s than in various country hospitals, to

<sup>2</sup>There were no maternal deaths among some 3,000 hospital deliveries in 1949-53.

some fifty of which the author had sent a questionnaire.

But to return to the *Statistical Tables*; the series continued from 1860 until 1932 with only one break; the *Tables* for 1916 were compiled but never printed. After the first few years the enthusiasm waned; the form became stereotyped and there are few tables with real statistical interest. The explanation is perhaps this: once the Listerian revolution was complete, there was no general hospital problem to be solved, only the separate problems of individual diseases. Wholesale hospital statistics of the sort envisaged by Farr and Florence Nightingale could shed little light on these, and conditions were not yet ripe for the more specific investigations which will be considered later in this article. Concurrently with the change of attitude was the gradual adaptation of the *Tables* into an index to the clinical records themselves, and by 1921 this aspect had become predominant. In view of the curious history of the word "registrar" it is perhaps worth recording that until 1920 the *Tables* continued to appear under the authorship of "The Medical Registrar" and "The Surgical Registrar." In 1921 the authors appear as "First Assistant of the Medical Unit" and "First Assistant of the Surgical Unit"; under these new titles are the names of Dr. George Graham and Mr. R. Ogier Ward. But this post-war series only lasted until 1932,<sup>3</sup> by which time there were evidently too many other claims on the time of the first assistants and the tables went by default. (One of the last compilers has described to me how he used to spread all the index cards out on his drawing-room floor and proceed to play a vast game of patience with them).

When the problem of statistical tables came to be considered in the re-organisation after the last war it was felt that new methods were necessary, and in 1947 the Department of Medical Statistics (under Mr. J. A. Heady) was set up. The department remains the only one of its kind among the London teaching hospitals. It was housed, where it still remains, in the North-West corner of the old Rahere ward.

The three chief aims of the new department are set out in its first Report:

<sup>3</sup>Although an isolated volume appeared for 1936.

(i) Indexing the records from various points of view, thereby making the clinical experience of the hospital, as recorded in the notes, available as conveniently as possible.

(ii) Production of tabulations both annually and as required.

(iii) Provision of technical advice on the planning and analysis of experiments and enquiries.

In order to fulfil the first two of these aims it was decided to make use of the Hollerith punched card system. According to the popular conception this is something that enables the records of all diabetic left-handed french polishers suffering from Menière's disease to be revealed by the mere pressing of a button. In essence this is not far wrong; it is only a picturesque way of saying that punched cards provide a multi-axis index. But there is a great deal more to it than that. First the information has to be collected; about 12,000 in-patients are discharged in a year, and we have to ensure that the notes of each are passed to the department for coding; that is to say translating into figures the details recorded on the "front sheet." Of these the most important is the diagnosis, which has been entered by the registrar (as we must call him again; but he is now one of thirty or more). The figures are transferred to cards measuring about 8 in. by 3 in. in the form of holes punched by a simple keyboard machine no bigger than a typewriter. From these are compiled the annual diagnostic index and the annual *Statistical Report* which, in 1947, replaced the old *Tables*.<sup>4</sup>

Before discussing the provision of technical advice, we must go back to the wider world and look for a moment at the contributions made by statistics to medicine in the last hundred years. To the sanitary reformers of the nineteenth century statistics meant little more than tables of figures; no special techniques were used in their interpretation. The statisticians were, first and foremost, fact-finders, and the facts they found were usually so startling as to speak for themselves. In a report on the health of the army, Florence Nightingale showed that the death rate in the Knightsbridge barracks was 17.5 per thousand, compared with 3.3 for the whole borough of Kensington. It was on such facts that the campaigns for improved sanitary conditions were based. In the realms of pure science different forces were at work. Darwin's "Origin of

<sup>4</sup>Full details of our methods are given in the Appendix to the 1951 Report.

Species" was published in 1859 and a few years later Mendel's work first appeared. Both these revolutions implied the quantitative study of living material, and for these purposes mere enumeration was not enough. The mathematical theory of probability, which had exercised philosophers (and gamblers) for two hundred years or more, was suddenly found to have a new and practical importance. Francis Galton was among the first to realise this, and his pupil, Karl Pearson, working at University College, developed some of the statistical methods necessary to follow up the work of Darwin and Mendel. But Pearson's methods were still not suitable for most branches of medicine, and it was not until R. A. Fisher, working at the Agricultural Research Station at Rothamsted, introduced a new conception of the role of statistics in experimental science, that real advances could be made. It would be out of place even to summarise Fisher's teaching, but two main points can perhaps be selected: Fisher taught us the importance of planning experiments and he showed us how to extract the maximum information from small numbers.

In the fields of clinical medicine the opportunities for planned experiments do not occur as often as the statistician might wish; much medical research is of necessity a by-product of clinical practice. But both the planned and the unplanned type of research bring their special difficulties to the statistician. In a formal clinical trial, of the type with which Professor Bradford Hill and the M.R.C. have made us familiar, one of the problems is to design an experiment which will reduce to a minimum all possible sources of bias, whether of known or unknown cause; once this is done the interpretation of the results is usually relatively easy. In an unplanned investigation, based for example on existing records, there is the more difficult task of determining the possible sources of bias from internal evidence. It should be pointed out that in this context the word "unplanned" is used in no derogatory sense; a serious investigation can hardly be carried out in a haphazard fashion.

It is in interpreting such ideas to those engaged in experimental medicine that the Department of Medical Statistics at this

Hospital fulfils its third aim. The range of subjects on which we have been consulted is wide, and it is difficult to give examples. Among some of the more out-of-the-way problems have been the institution of an equitable method of scoring for the students' rifle club and the interpretation of some observations made at Monte Carlo by a member of the consultant staff. (All statisticians are asked, at the rate of about once a week, how to make money on the football pools; doubtless we could set the Hollerith machine to calculate permutations). But I would like to end by describing the first investigation in which we did more than offer advice, an investigation in which the Department was associated on equal terms with the clinicians.

During the ten years before the last war, Mr. Geoffrey Keynes and others started treating cancer of the breast by conservative surgery combined with irradiation, in place of the radical mastectomy favoured by most surgeons. Thus the surgical practice of the Hospital constituted the nearest approach to a controlled trial that might be expected in this field, where ethical considerations alone are probably sufficient to preclude any stricter form of control. During the ten years about a thousand new cases of carcinoma of the female breast were seen in the Hospital and in spite of the dislocations of the war the Follow-up Department only lost trace of thirty of these women from the

time they left hospital until 1951. Our first task (by no means an easy one) was to extract all the relevant details from the notes and to record them on forms drawn up for the purpose. From these forms cards were punched in exactly the same way as described earlier. The analysis of material of this sort, where so many factors are involved, calls for a special type of Hollerith machine, (whose mechanical rattle many will have heard as they passed the window of what was once the Rahere bathroom). Without some such help it would be almost impossible to calculate survival-rates, corrected for age, for all the combinations of factors likely to be relevant. I am not concerned here with the results of this investigation, which have been published elsewhere; the point I want to make is that surveys such as this are essentially joint projects. Only the clinical departments know what questions need answering; we in the Statistics Department can supply the mechanics and help to interpret the results.

*Conclusion.* I have attempted to trace the impact of statistical ideas on medicine over the past hundred years, and to show how this has been reflected in the work of one hospital. To do this in the space of a short article I have had to miss out much that is important, but I hope I have said enough to prove that something has been gained by the association of Statistics, Medicine and Bart's.

## NUCLEIC ACIDS AND DISEASE

Knowledge of the specific metabolic disturbances of the cell in disease is still very lacking, and knowledge of the normal basic machinery of the cell is also very incomplete. Hence our range of specific drugs is at present limited and it is still not possible, *a priori*, to design a molecule to correct the disturbance produced in any particular disease. There is now, however, increasing interest in the interpretation of disease at a molecular level, and the study of nucleic acids has, naturally, received particular attention because of their predominant rôle in the workings of the cell. There is strong evidence, for example, that the secret of the cancer problem lies in the detailed structure of the nucleo-protein complex of the nucleus. There is also evidence that the metabolic cell disturbances due to viruses (and to bacteria to some extent) are due to the addition of a foreign nuclear protein to the cell. When the cancer problem is viewed in this way some carcinogenic substances, certain carcinogenic viruses and a possible inherited cancer susceptibility factor all find common ground in nucleo-protein. Further cancer and virus research may be expected to benefit one another in correcting nucleo-protein disturbances.

### Structure and functions of nucleic acids.

Two principal types of nucleic acid are found in living cells, deoxyribonucleic acid (DNA), restricted to the chromosomes of the nucleus, and ribonucleic acid (RNA), present in the nucleolus and the cytoplasm.

DNA in higher cell forms is associated with basic simple proteins. In animal somatic cells they are histones (molecular weight 14,000 to 20,000). They are not known to have any specific biological function. The difficulty of isolating nucleo-protein from the nucleus of a fixed composition, (1), and the ultra-violet microspectrophotometric observations of Caspersson, (2), on the living cell have led to the conclusion that nucleo-protein is not a definite unit in the cell nucleus. The marked biological activity found in pure protein-free DNA in recent years has now turned attention more to the nucleic acid part of the complex.

Detailed analysis of the DNA of the chromosomes has been carried out in the hope of relating genetic specificity to struc-

ture, (3, 4, 5). Remarkable results were obtained. Firstly, the old "tetra-nucleotide" theory was disproved whereby each unit of nucleic acid was supposed to contain one molecule each of the two pyrimidines, cytosine and thymine, and of the two purines, adenine and guanine. Secondly, the molar proportions of guanine and cytosine, and those of adenine and thymine, were shown to be equal in DNA from a variety of sources. Thirdly, the relative proportions of these two pairs varied widely and was characteristic of the source (6).

The X-ray diffraction spectra of isolated DNA, (7), and the DNA of active transforming principle of bacteria, (8), indicate a spiral molecular structure. Watson and Crick, (9), proposed that two molecules intertwine as a double helix with purine bases hydrogen bonded to pyrimidines (guanine to cytosine and adenine to thymine). (Fig. 1.) The analytical results are explained because these are the only pairs of bases that can, sterically, fit the model. Electron micrographs of DNA fibres confirm this, showing a mean width of 20Å° consistent with two intertwined molecules (10, 11).

The model provides a ready explanation of how DNA duplicates. If one half of the helix separates, the preformed bases can only unite in a definite complementary manner in order to complete the fibre. Also the cross-over of chromosomes in meiosis may be explained as due to the overlap of two halves of the fibre already undergoing duplication.

The structure of RNA is only just beginning to receive the attention it deserves. RNA has a more general distribution than DNA. Schneider's analysis of the centrifuged fractions of rat liver homogenates, (12), showed that of the total RNA of the cell the nucleolus contains about 14 per cent, the mitochondria 8 per cent, the microsomes 54 per cent, and the cell sap 24 per cent. Recently, Chargaff, (13), has improved methods of extraction and analysis and shown for cytoplasmic material that the bases are in the same molar proportions (but with uracil taking the place of thymine) as for DNA so that the same helical structure is indicated, (9b). X-ray data are not yet available to confirm this. RNA from the nucleolus, however, shows a ratio of these

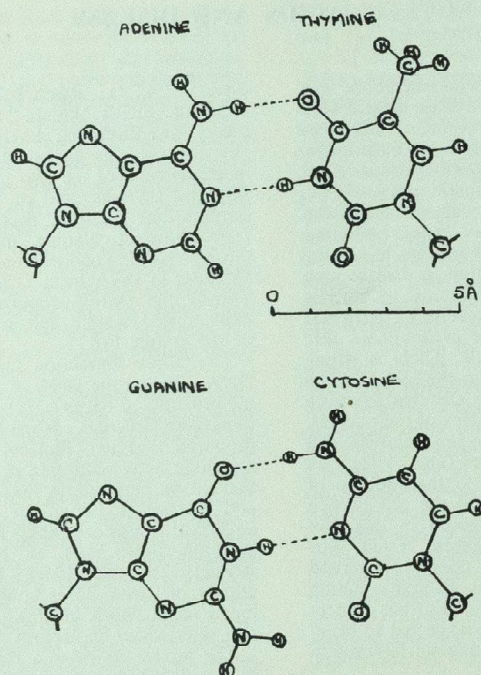


Fig. 1a. Hydrogen bonding of purine and pyrimidine bases.

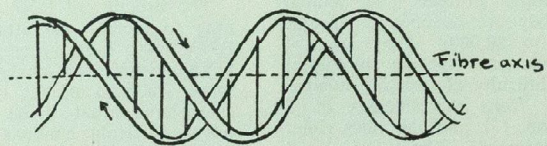


Fig. 1b. Structure of DNA. Phosphate-sugar chains as ribbons, the pairs of bases as vertical lines.

bases different from unity but hydrogen bonding in the helix can still occur. The analysis of DNA and RNA from the same source were compared but no decision could be made as to whether the DNA serves as a "template" for the synthesis of RNA or vice versa.

Up to quite recently it has been assumed that the DNA of the chromosomes was the only genetic substance in the cell. There are now indications that RNA may also have genetic activity. Firstly, this is implied by the similarity of structure of the two nucleic acids. Secondly, the eggs of the echinoderms *Asterias forbesii* and *Arbacia punctulata* have been found to contain no DNA as determined by the Feulgen staining and  $^{14}\text{C}$  labelled thymine studies (14). Thirdly, some organisms show cytoplasmic inheritance by plasmagones, (15), and, fourthly, the smallest (less than 42  $\mu$  diameter) viruses have so far been shown only to contain RNA. (Table 1.)

The DNA of the chromosomes, once formed, has a slow turnover rate indicating that it plays perhaps a passive, guiding rôle in cell metabolism. In fact, the average amount of DNA of mature cell is so constant, that it is useful for reference in the analysis of other cell components (16, 17). Haurowitz, (18, 19), has shown that in contrast with DNA the RNA content varies with the activity of the cell, e.g. it is high in active secretory cells. The evidence for an association of rapid protein synthesis with high

RNA content, (20) is conflicting since if the rat intestine is treated with X-rays the turnover of RNA and DNA is greatly reduced without affecting protein synthesis (21).

#### Nucleic acids and the cancer problem.

There is a considerable amount of evidence to show that the primary change in the cancer cell is in the nucleus. Firstly the cancer cell shows evidence of a mutation since its characteristic uncontrolled divisions and powers of infiltration are transmitted through numerous generations. Also, certain human tumours, e.g. multiple neurofibromata, show Mendelian inheritance. Amongst animals, some incompatible crosses of fishes can result in melanomata (22). Secondly, in tumours produced by massive doses of X-rays or alkylating agents of the mustard gas type, chemical reaction with the DNA of the chromosomes can be demonstrated. Clearly, too, the purine and pyrimidine analogue type of cytotoxic and carcinogenic agents act by interfering with nucleic acid synthesis. Often, these carcinogenic substances show marked mutagenic activity, e.g. nitrogen mustard greatly increases the mutation rate of *Drosophila* (23). These substances also abundantly produce the abnormal mitotic figures seen in tumour tissue indicating the nucleic acid of the chromosomes (particularly of the heterochromatin region, (24)) is primarily affected. Thirdly, micro-injection of carcinogen treated cytoplasm does not cause cancer changes in the cell (25, 26). Fourthly, it

Table 1. DNA and RNA contents and size of viruses  
(Per cent. of dry weight). (38, 39).

VIRUS	DNA	RNA	MEAN DIAMETER $\text{m}\mu$
<b>Animal Viruses</b>			
Poliomyelitis ... ..	—	+	15-25
Louping ill ... ..	—	+	15-25
Equine encephalomyelitis ... ..	—	4.4	42
Shope papilloma ... ..	8.7	—	44
Rous sarcoma ... ..	—	10.0	70-80
Influenza A (PR8) ... ..	1.5	+	100
Influenza B (Lee) ... ..	1.2	+	100
Molluscum contagiosum ... ..	+	—	150-200
Vaccinia ... ..	5.6	?	240
<b>Bacteriophage T2</b> ... ..	37	—	(Head) 60
<b>Plant Viruses</b>			
Tobacco necrosis ... ..	—	17	17
Turnip yellow mosaic ... ..	—	35	20
Tobacco mosaic ... ..	—	6	15 × 300

is reasonable to suppose that in virus induced tumours, e.g. the Rous fowl sarcoma, papillomata of rabbits, and breast cancer of mice, the cancer change is due to injection of the virus nucleic acid into the cell with consequent profound disturbance of metabolism.

On the basis of the nucleic acid approach, several theories of carcinogenesis have been proposed in recent years. The "mutation by gene loss" theory suggests that an enzyme controlled by the gene is lost leading to accumulation of substances essential for cell division. In *Neurospora*, (27), an alternative metabolic pathway has been found for oxalic acid resulting in its incorporation into nucleic acid. Loss of an essential enzyme of the usual path would result in increased nucleic acid synthesis, a necessary condition before division can occur.

Haddow, (28), found that injection of the natural pigment xanthopterin into the rat caused proliferation of renal tubular epithelium. A xanthopterin oxidase is present in the cell and presumably controls the accumulation of this substance. The loss of such an enzyme can result in a cancer-like change. Similar growth-stimulating substances are present in liver and bone undergoing hypertrophy.

Although the turnover rate of DNA is much slower than RNA it is possible that the breakdown pathway differs from the synthetic one. Loss of an essential enzyme of the breakdown path would lead to excessive accumulation of DNA and so, to increased cell activity and division. The introduction of foreign nucleic acid into the cell by a carcinogenic virus could provide a more rapid path for the synthesis of DNA.

As is discussed below, carcinogens frequently show a marked depolymerising effect on DNA by destroying hydrogen bonds between adjacent molecules. The occurrence of this in the chromosome DNA, particularly in the heterochromic region, could account for premature division and the production of abnormal mitotic figures.

The discovery of the mustard gas derivatives (Fig. 2) of simple structure and effective against some malignant cells, has provided an enormous impetus to cancer research. Also, detailed study of their structure has emphasised even more the part of DNA in carcinogenesis. The early finding that marked cytotoxic activity depends on a minimum of two halo-alkyl groups in the

molecule led Haddow (29) to suggest that their action was to cross link adjacent DNA molecules. Detailed physico-chemical investigation, however, showed these and other cytotoxic agents (including X-rays) depolymerise DNA, causing a marked drop in viscosity with no great decrease in molecular weight, rather than polymerise it (30). It is probable that these agents destroy hydrogen bonds between molecules. Later work showed monofunctional mustard gas derivatives (Fig. 2) were cytotoxic to some extent and the ability to form an electrophilic carbonium ion (Fig. 2) is thought to be required for cytotoxicity. These substances have no appreciable effect on the enzymes of the cell at the concentrations required for their action (31).

The cross-linking theory, however, stimulated a search for other difunctional alkylating agents. Several substances used in the German wool and rayon industry for cross-linking fibres to minimise shrinking were found to be cytotoxic. 2, 4, 6-triethylene-imino-s-triazine (triethylene melamine, T.E.M.), (Fig. 2), was found to be at least as effective as nitrogen mustard in Hodgkin's Disease, less toxic, and could be given by mouth. Haddow (32) synthesised a series of dimethane sulphonyloxy alkanes (Fig. 2) of which Myleran (GT41, 1, 4, dimethane sulphonyloxy butane) proved particularly effective for certain leukemias. Another group of cytotoxic substances act as anti-metabolites, interfering with the synthesis of DNA. Urethane (Fig. 2) may act by competing with a natural amine in the biosynthesis of nucleotides (Haddow and Sexton (33)). This substance has low toxicity but its clinical value is doubtful. The folic acid antagonists, e.g. aminopterin (Fig. 2) act by replacing an active form of folic acid (the citro-vorum factor) which is essential for DNA synthesis. They are useful in acute leukemia.

The alkylating agents were first called "radiomimetic" because some of their effects appeared similar to those of X-rays, e.g. they are both cytotoxic in small amounts, carcinogenic in large amounts, produce abnormal mitoses and mutations, sterility of the genital organs and reduce the viscosity of DNA solutions. The reaction mechanism for X-rays, however, is different. In aqueous solution  $H^+$  and  $OH^-$  free radicals are produced and in the presence of oxygen

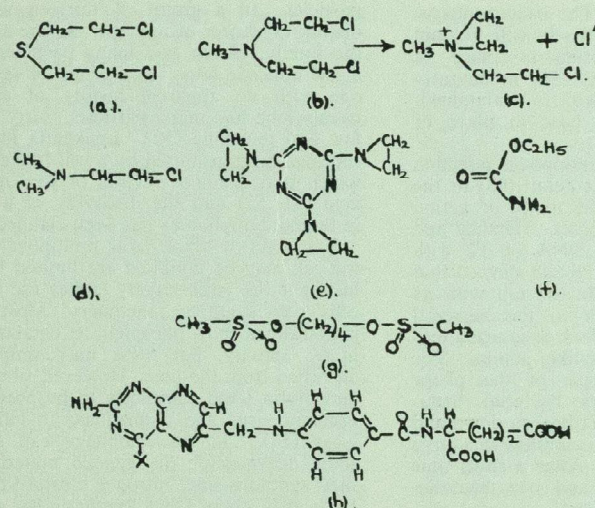


Fig. 2 (a) Sulphur Mustard, (b) Nitrogen Mustard, (HN<sub>2</sub>), (c) Ethylenonium Ion of HN<sub>2</sub>.

(d) Monofunctional HN<sub>2</sub> Derivative, (e) T.E.M. (f) Urethane

(g) Myleran, (h) Folic Acid Antagonists, Folic Acid, X=OH, Aminopterin, X=NH<sub>2</sub>.

also the  $HOO^\circ$  radical and these are responsible for the depolymerisation of DNA (34). No depolymerisation occurs with solid or frozen DNA or if protecting substances like cysteine are present. The depolymerisation can be brought about by the same free radicals produced by U.V. light or by hydrogen peroxide and ferric iron salts. Excessive X-ray doses cause release of ammonia and phosphate and the formation of uric acid and oxalic acid. Depolymerisation of DNA has been shown *in vivo*, in irradiated rats and the mortality was found to be related to the degree of depolymerisation (35, 36).

This work suggests that carcinogenesis is the result of the breakdown of intermolecular forces between adjacent DNA molecules. The change is thus a steric and not a chemical one and it is therefore not surprising that no chemical changes have been detected in DNA from tumour tissue.

#### Nucleic acids and viruses.

The advent of paper chromatography and of more efficient means of separating the virus from the host (e.g. protamine sulphate precipitation followed by treatment with

trypsin (37)) has allowed a number of analyses of viruses to be carried out (Table 1). In general, as far as the results go at present, it seems that plant viruses contain only RNA, bacteriophage only DNA, the larger animal viruses possibly both RNA and DNA, the small viruses (42 m $\mu$  or less) only RNA. However, further work is required before any real generalisations can be made. It seems plausible that below a certain size (about 42 m $\mu$ ) and degree of organisation the DNA mechanism of genetic transfer does not exist and reliance is placed entirely on the genetic properties of RNA. The large vaccinia virus (240 m $\mu$ ) shows a central nucleus-like core of DNA (40).

The carcinogenic viruses are of special interest. According to the present estimations (Table 1) the Rous sarcoma virus contains only RNA as, also, does the mouse milk factor (41) while the rabbit papilloma virus contains only DNA. Presumably where virus RNA is introduced into the cell metabolism is directly modified whereas if DNA is introduced corresponding, abnormal RNA is first synthesised which then produces the

metabolic disturbances. The bacteriophages T2, T4, T6 which infect *Esch. coli*, contain 5-hydroxy methyl cytosine in place of cytosine in the DNA, (42). The molar ratio of bases already described is maintained, however, with the new base in place of cytosine.

The mechanism of bacteriophage infection has been studied in great detail (43) in the hope of understanding the mode of action of animal (and plant) viruses. Hershey and Chase (44) labelled the DNA of T2 with  $^{32}\text{P}$  and the protein with  $^{35}\text{S}$  and showed that in infection of *Esch. coli*, the tail with its labelled protein attaches to the bacterial wall and the contained DNA is squirted into the cell with a syringe-like action. The 5-hydroxy methyl cytosine of the phage DNA completely upsets bacterial metabolism. Bacterial DNA is broken down and the cell machinery used to synthesise a large amount of phage DNA. After a short time the bacterium is lysed and new bacteriophage particles are released.

Bacteriophage-like activity is seen in a number of virus infections of animal cells. After some hours scattered "inclusion bodies" are visible in the cell which electron microscope studies show to consist of immature virus particles in a matrix of RNA (45). At this stage, as with bacteriophage, there is an "eclipse period" during which the infectious titre is reduced. The distribution of the virus in the cell is variable and according to Hydn (46) viruses containing DNA increase protein synthesis either in the cytoplasm (*Molluscum contagiosum*) or in the nucleus (infectious warts), while viruses containing RNA (*Poliomyelitis*, Louping ill), produce intranuclear granules containing RNA and protein.

Bittner (47) showed that the incidence of breast cancer in mice was increased in low incidence strains by foster feeding from a mother of a high incidence strain. Electron micrographs of the milk and other tissues show abundant particles (48) and these have typical virus properties (49). The virus appears to infect only the milk and not through the placenta and then to be dormant till maturity. Human milk contains somewhat less definite particles most frequently in subjects with a family history of breast or other cancer. In a group of twelve people having a history of breast cancer, the milk of all twelve contained a large number of

particles. In a group of thirteen with a history of cancer of any sort on one side of the family, eleven had many particles, one a few and one none. In a group of seventy-one with no apparent history of cancer, twenty-nine had many particles, thirty-two a few and ten none (50). Leukemia in mice can also be transmitted by a cell-free extract which may contain a virus or free nucleic acid (51, 52) and the discovery of a virus in human lymphomas has been claimed (53).

The ways in which virus multiplication in the cell may be inhibited are limited by the fact that the virus largely makes use of the cells' own synthetic machinery. Most virus preparations show phosphatase, catalase and lipase activity, but these may simply be adsorbed from the host. However, riboflavin and biotin seem constantly to be present in vaccinia virus and a mucinase in influenza virus (54). T2 bacteriophage can supply some enzymes or the genetic material for their synthesis since nitrogen mustard treated *Esch. coli* where DNA synthesis has ceased and RNA is accumulating is restored to normal by infection with T2 (55).

An alternative method of attack is to supply substituted purine or pyrimidine derivatives in the hope that they will preferentially block the synthesis of virus DNA. 8-azo guanine has been shown to inhibit psittacosis (56) 2, 6-diamino purine inhibits Russian encephalitis (57) and various phenoxythiouracils inhibit vaccinia in mice (58). Other derivatives inhibit encephalomyelitis (59) and poliomyelitis (60). Many non-specific substances inhibit viruses, e.g. urca and other denaturing agents, proflavine, and amino acid analogues. The slight response of some virus diseases to antibiotics is probably due to selective enzyme inhibition (61).

#### Nucleic acids and bacteria.

Bacteria contain both DNA and RNA, the DNA being associated with rudimentary chromosomes (62). The RNA of the cell is thought to be responsible for the Gram-positive staining reaction (63).

The spontaneous change in old cultures of bacteria from the smooth, polysaccharide coated form (S) to the rough, uncoated form (R) occurs in many species. The change is accompanied by a decrease in antigenicity and virulence. The reverse, R→S change, has previously only been produced with difficulty by passage through animals. Recently, certain bacterial extracts called transforming

principles have been found to produce this reverse change. Great interest was aroused when it was found that the whole of this activity was contained in the DNA of the extract. Transforming principle from pneumococci type III was shown to change the R variants of type II to the S forms of type III when administered in very small amounts (64, 65). Hotchkiss (66) purified the DNA of this transforming principle till it contained less than 0.02% protein and showed that its activity was completely destroyed by desoxyribonuclease and not by proteolytic enzymes. The activity was also destroyed by substances like urea and mustard gas which alter the molecular configuration of the DNA. Boivin (67) showed similar R→S changes could be produced in *Esch. Coli* and Zamenhof (68) in *H. influenza*. Further emphasis on the genetic properties of DNA was shown by Ephrussi — Taylor's experiment where two different principles acting on the same bacterium produced a distinct third genetic change (69). A single example of transforming action due to RNA is known. RNA from many sources is capable of causing the appearance of streptolysin in cultures of *strept. pyogenes* (70).

DNA has also considerable influence on the resistance of bacteria to antibiotics.

Hotchkiss (71) has shown that DNA extracted from penicillin resistant strains of pneumococci is capable of conferring resistance onto sensitive pneumococci. This activity is destroyed by desoxyribonuclease and transmitted in a gene-like manner. Similarly, streptomycin resistance has been induced in *H. influenzae* (72).

#### Conclusions

Sufficient examples have been given to show that the fundamental molecular approach to disease is capable of paying dividends. In fact, as far as the cancer problem is concerned, it is the only approach that has had any success at all in the chemotherapy of the disease. The vast literature of "trial and error" attempts at cancer chemo-therapy is witness to its futility. The startling manner in which nucleic acids are able to influence cell metabolism calls for further research into their structure. Their composition and their basic configuration are satisfactorily known but the details of the steric arrangement of the molecules seem to be the all important key to their specificity. Further X-ray diffraction and electron diffraction work to elucidate this will be difficult but not impossible.

#### REFERENCES

1. Davison, Conway and Butler, in *Progress in Biophysics*, **4**, 159 (1954).
2. Caspersson, "Cell growth and cell function," New York, Norton and Co. (1950).
3. Guiland and Jordan, *J. Chem. Soc.*, 1129, 1131, (1947).
4. Chargaff, Vischer, Zamenhof, *J. Biol. Chem.*, **173**, 327 (1948); **176**, 715 (1948); **177**, 429 (1949).
5. Hotchkiss, *J. Biol. Chem.*, **175**, 315 (1948).
6. Chargaff, *Exp. Cell Res.*, Supp. **2**, 41, (1952).
7. Pauling and Cory Proc. Nat. Acad. Sci., U.S., **39**, 84 (1953).
8. Wilkins, Stokes and Wilson, *Nat.*, **171**, 738; **172**, 754 (1953).
9. Watson and Crick (a) *Cold Spr. Harb. Symp. Quant. Biol.*, **18**, 123 (1953). (b) *Nat.* **171**, 737 (1953); (c) *Discovery*, **15**, 12 (1954).
10. Williams, *Biochim. Biophys. Acta.*, **10**, 192 (1953).
11. Kahler and Lloyd, *ibid.*, **10**, 355 (1953).
12. Schneider, *J. Biol. Chem.*, **176**, 259 (1948).
13. Elson and Chargaff, *Nat.*, **173**, 1037 (1954).
14. Marshak and Marshak, *Nat.*, **174**, 919 (1954).
15. Sonneborn, *Heredity*, **4**, 11 (1950).
16. Boivin, *Compt. rend. Acad. Sci.*, **226**, 1061 (1948).
17. Mirsky and Ris, *J. Gen. Physiol.*, **34**, 451 (1951).
18. Haurowitz, *Quart. Rev. Biol.*, **24**, 93 (1949).
19. Haurowitz and Crampton, *Exp. Cell Res. Supp.*, **2**, 50 (1952).
20. Caspersson, *Die Naturwiss.*, **29**, 33 (1941).
21. Abrams, *Archiv. Biochem.*, **30**, 90 (1951).
22. Gordon, *Endeavor*, **9**, 26 (1950).
23. Bordette, *Cancer Res.*, **9**, 594 (1949).
24. Revel, Ph.D. Thesis, Univ. of London, (1952).
25. Auerbach and Robson, *Proc. Roy. Soc. Edin.*, **B62**, 271 (1947).
26. Whiting, *Proc. Nat. Acad. Sci.*, **36**, 368 (1950).

## REFERENCES (CONT.)

27. Mitchell and Houlahan, *Federat. Proc.*, **6**, 506 (1947).
28. Haddow, "Physio-pathology of Cancer," Ed. Homburger & Fishman, Cassell, N.Y., p. 508 (1953).
29. Haddow, *Kon and Ross, Nat.*, **162**, 824 (1948).
30. Butler and Smith, *J. Chem. Soc.*, 3411 (1950). *Nat.*, **165**, 847 (1950).
31. Needham, *Biochem. J.*, **42**, XXV, (1948).
32. Haddow and Timms, *Lancet*, **1**, 207 (1953).
33. Haddow and Sexton, *Nat.*, **157**, 500 (1946).
34. Smith and Butler, *J. Amer. Chem. Soc.*, **73**, 258, (1951).
35. Limepros and Mosher, *Amer. J. Roent.*, **63**, 681, 691 (1950).
36. Limperos, *Cancer Res.*, **11**, 325 (1951).
37. Warren, *et alia*, *Proc. Exp. Biol. Med.*, **72**, 662 (1949).
38. Luria, "General Virology", 101, 106. Wiley, N.Y. (1953).
39. Davidson, "Biochemistry of the Nucleic Acids", 187, Methuen, London (1953).
40. Dawson and McFarlane, *Nat.*, **161**, 464 (1948).
41. Kahler, Bryan and Speck, *J. Nat. Cancer Inst.*, **4**, 37 (1943).
42. Wyatt and Cohen, *Nat.*, **170**, 1072 (1952).
43. Epstein, *Adv. in Virus Res.*, **1**, 1 (1953). Also see (38).
44. Hershey and Chase, *J. Gen. Physiol.*, **36**, 39 (1952).
45. Banfield *et alia*, *Proc. Soc. Exp. Biol. Med.*, **77**, 843 (1951).
46. Hydén, *Cold Spr. H. Symp. Quant. Biol.*, **12**, 104 (1947).
47. Bittner, *Science*, **84**, 162 (1936).
48. Porter and Thompson, *J. Exp. Med.*, **88**, 15 (1948).
49. Andervont, "A symposium on mammary tumours in mice", A.A.S. Washington, U.S.A. (1945).
50. Gross, McCarty and Gessler, *Annals of N.Y. Acad. Sci.*, **54**, 1018 (1952).
51. Gross, *Proc. Soc. Exp. Biol. Med.*, **76**, 27 (1951).
52. Gross *et alia*, *Cancer Res.*, **12**, 267 (1952).
53. Hoster *et alia*, *Cancer Res.*, **12**, 69 (1952).
54. Bauer, in "Nature of Virus multiplication," C.U.P. (1953).
55. Herriot, *J. Gen. Physiol.*, **34**, 761 (1951).
56. Morgan, *J. Expt. Med.*, **95**, 277 (1952).
57. Moore and Friend, *Proc. Soc. Expt. Biol. Med.*, **78**, 153 (1951).
58. Thompson *et alia*, *J. Immunol.*, **67**, 483 (1951). *Science*, **110**, 454 (1949).
59. Viser, Lagenburg and Pearson, *Proc. Soc. Expt. Biol. Med.*, **79**, 571 (1952).
60. Brown, *J. Immunol.*, **69**, 1441 (1952).
61. Gledhill and Andrews, *Brit. J. Exp. Path.*, **32**, 559 (1951).
62. De Lamater, Hunter and Mudd, *Exp. Cell. Res.*, suppl. **2**, 323 (1952).
63. Bartholomew and Mittwer, *Bact. Res.*, **16**, 1 (1952).
64. Avery, Macleod and McCarty, *J. Exp. Med.*, **79**, 137 (1944).
65. McCarty and Avery, *J. Exp. Med.*, **83**, 89 (1946).
66. Hotchkiss, *Exp. Cell. Res.*, Suppl. **2**, 383 (1952) and *Phosp. Metab.*, **2**, 246 (1952).
67. Boivin, *Cold Spr. Harb. Symp. Quant. Biol.*, **12**, 7 (1947).
68. Zamenhof *et alia*, *Archiv. Biochem. Biophys.*, **40**, 50 (1952).
69. Ephrussi — Taylor, *Cold Spr. Harb. Symp. Quant. Biol.*, **16**, 445 (1951).
70. Bernheimes and Rollbart, *J. Exp. Med.*, **88**, 149 (1948).
71. Hotchkiss, *Exp. Cell. Res. Suppl.*, **2**, 384 (1952) and *Cold Spr. Harb. Symp. Quant. Biol.*, **16**, 505 (1951).
72. Alexander and Leidy, *J. Exp. Med.*, **97**, 17 (1953).

---

◆

SO TO SPEAK . . .

*In M.O.P.'s:*

The patient does not drink, otherwise he leads a normal healthy life.

## SPORT

## RUGBY

**Bart's v. Metropolitan Police (at Chislehurst). Lost 3-8 pts.**

The Hospital, without Scott-Brown and Lammiman their chief scorers, came under heavy pressure as soon as the game started, playing up hill and against a strong wind.

About halfway through the first half the Police gained a deserved converted try, but after this could make little headway against a solid Hospital defence. Near half-time, however, they were able to increase their lead by a dropped goal.

In the second half the situation was completely reversed and it was Bart's turn to press. They were soon rewarded with an excellent penalty goal by Badley, but despite numerous attacks, made possible by the splendid hooking of Benedikz the Hospital back division could not show sufficient thrust to score from their many opportunities.

The poor form of the backs on this day resulted inevitably in the game deteriorating in the final stages into a forward battle in which the forwards showed they were more than equal to a much vaunted police eight.

**Bart's v. Old Alleynians (at Chislehurst). Drawn 6-6 pts.**

This was a very good game with both sides playing some good rugby to the delight of the spectators. Both sides were fairly evenly matched with the Hospital somewhat better outside the scrum.

The Old Alleynians opened the scoring with a good unconverted try, which roused the home side into a burst of activity which resulted in Phillips gaining a splendid unconverted try for the Hospital. Bart's then took the lead with a typical Badley penalty kick.

The Hospital were unfortunate not to increase their score from a copy-book movement by backs and forwards in which the

ball was carried over the Old Alleynians line but could not be touched properly.

In the closing stages the Old Boys made a great effort to draw level and finally succeeded in gaining a try near the corner flag which was not converted.

**St. Bart's v. Rugby (at Rugby). Lost 8-16 pts.**

A very tired Bart's team took the field at Rugby — this being the fourth game in eight days. At first the Hospital continued to show the form which has produced such good results this season, and were soon leading by 8 pts. to 3 pts. (penalty goal) with a try made possible by a neat run by Phillips on the blind side and a well-timed pass to Tallack who dived over the line despite the attention of two defenders. Badley converted and later kicked a penalty goal. The Hospital should have gone further ahead when Scott-Brown made a break and looked certain to score when fouled a few yards from the line. A penalty kick was given when all thought a penalty try should have been awarded. Badley was unfortunate with the kick.

In the second half Lammiman injured his leg when about to tackle and Rugby were able to score a converted try. Lammiman then went off and the Hospital were unable to prevent Rugby building up a score of 16 points.

## WOMEN'S HOCKEY CLUB

Since our last report we have played Chelsea Polytechnic—which we beat by 18 goals to nil; and Chislehurst Beavers where we won by 7-0. Last weekend the hockey team made a tour to Oxford, which unfortunately proved somewhat disappointing since most of the matches were cancelled owing to the condition of the pitches after the bad weather. However, we managed to

play a scratch Oxford University team, against whom we won 4-2—this match being played for the most part in semi-darkness. We also played an enjoyable match against University College men who afterwards entertained us with great hospitality. Next Saturday we are playing the 2nd round of the cup match—it is against King's College

and takes place at Chislehurst, at 2.30 p.m. United Hospitals team played their first match of the season on Wednesday, November 24th, and began their season well by beating Reading University 5-4. This team, which was previously rather scrappy has become very much better this year, and we would wish the players every success.

---

#### Change of Address

DR. W. W. WELLS,  
to 1, Belgrave Place,  
Bath,  
Somerset.

#### Births

FOX. On November 11th, to Ann, wife of Dr. Ronald H. Fox, a daughter (Marion Judith).

GARROD. On November 27th, to Gwyneth, wife of Dr. D. C. H. Garrod, a second son.

HAYTER. On November 24th, to Joyce, wife of Dr. Russell Hayter, a daughter (Sally Joy), sister for Charles.

MULLAN. On November 15th, to Mary, wife of Dr. John Mullan, a brother for Susan, Michael and Monica.

WALLEY. On November 21st, to Veronica, wife of Jon Walley, F.R.C.S., a son (Robin John).

#### Degree

HADFIELD, Geoffrey John. M.S. of the University of London.

#### Deaths

BEATH. On November 24th, Dr. David Leslie Beath, O.B.E. Qualified 1897.

HOPTON. On November 17th, Dr. Jack Hopton, aged 52. Qualified 1929.

LLOYD. On November 28th, Dr. Eric Ivan Lloyd. Qualified 1916.

NIMMO. On November 15th, Surgeon Rear-Admiral Frank H. Nimmo, M.V.O. Qualified 1896.

SCOTT. On October 21st, in Johannesburg, Dr. James Duff Scott, aged 49. Qualified 1931.

#### Appointment

DONALD, Dr. K. W., has been given the title of first assistant in the Department of Medicine at the University of Birmingham from the date that Dr. W. Trend Cooke relinquishes his whole-time appointment.

#### R.A.M.C.

DODD. Captain (Brevet Major) T. A. J. M. Dodd has ceased to belong to the R.A.R.O. and has been granted the honorary rank of Major.

FARQUHAR. Captain (War Substantive Major) J. V. L. Farquhar—as above.

## EXAMINATION RESULTS

### THIRD M.B., B.S. EXAMINATION FOR MEDICAL DEGREES

October, 1954

Akinjagunla, A. M. O.	Staunton, M. H.	Macdonald, A. H.	Cranston, C. J.
Bashford, A. E.	Topham, P. A.	Mears, G. W. E.	Forget, P. Y. N.
Bliss, P.	Willing, R. J.	Perkins, M. V.	Goss, G. C. L.
Castle, W. B.	Allen, A. B.	Taylor, R. C.	Ivory, P. B. C. B.
Crabtree, A. S.	Beasley, R. W. R.	Wetherall, J. M.	Martin, R. M.
Dunkley, A. H.	Bloom, M.	Wilson, D. M.	Need, R. E.
Gampell, B. I.	Clare, K. A.	Andrewes, D. A.	Shire, G. M.
Graham, M. A. H.	Craggs, D. F.	Bee, D. L.	Thomas, D. P.
Landau, N.	Fletcher, L. O. A.	Bromwich, L. R.	Wheeler, B. R.
Matheson, P.	Gardiner, A. B.	Cochrane, J. G.	Wyner, S. E. A.
Pagan, R. T.	Hooper, M.		

---

## BOOK REVIEWS

**Proceedings of the First World Conference on Medical Education.** Published by Oxford University Press. 804 pp. Price 60s.

The title of this volume gives little indication of the variety and excellence of its contents. The difficulty of recording the deliberations of a large Conference working in four separate sections must have posed many problems to the editor and he is to be congratulated both on the clarity of presentation and on the format of the book. The President of the Conference, Sir Lionel Whitty, explains in a foreword that the programme of the Conference was not an attempt at curriculum building, but rather directed towards selecting speakers who would stimulate thought and discussion on the methods of content of Medical Education. In this the planners have certainly succeeded. Naturally from the point of view of the readers' interest, the individual contributions vary in quality. Some idea of the field covered is given by the general plan of the Conference with its sections on the requirements of entry into Medical Schools, the aims and content of the

medical curriculum, techniques and methods of medical education, and, finally, preventive and social medicine. The malcontent seeking evidence to support his grievance with the current state of affairs will be disappointed in the book as a field of research. For anyone who wishes to survey widely the theories and practices applied to medical education in many countries the volume will be of great value. Not least important are the summaries of the activities of the various sections made by their respective vice-presidents and rapporteurs which form a final section to the book. They give a fair and brief exposition of the work of each section and stimulate the reader to turn back to the original papers to cover the points in greater detail. I doubt if many students or practitioners would regard this book as essential for their own bookshelves, but it is certainly a most engaging work of reference which should be made easily available to all those who take seriously the problems of medical education

CHARLES F. HARRIS.

**Scientific Books Libraries and Collectors. A Study of Bibliography and the Book Trade in Relation to Science.** John L. Thornton and R. I. J. Tully. Published by the Library Association. 288 pp. Price 24s.

This book is essentially the work of the first author, and is the awaited companion (first envisaged in 1941) to his "Medical Books Libraries and Collectors," 1949.

It is an attractive, useful and fascinating book representing, as its publishers say, "a bibliographical approach to the history of science," and being surprisingly comprehensive in respect of the information which it contains from the first chapter, on "Scientific Literature Before the Invention of Printing," to the twelfth, on "Scientific Libraries of Today," which is followed by a Bibliography and a properly effective Index. Though obviously intended as a reference book, it is so full of interesting items and so pleasantly written that one goes on reading to see what else happened in that particular century, and the next one, and so on!

Those who seek Mr. Thornton's help within our own College Library are very aware of his erudition, friendliness, and eagerness to help one in every possible way. It almost seems as if this printed book has captured some of those same qualities, and that is really rather exciting news. For it means that, with this new work and its previously published medical counterpart, we can have Mr. Thornton with us in spirit in our own personal libraries and elsewhere, extending to us there that wonderful measure of assistance on which we in Bart's have learned that we may always count.

Fancy being offered all that for a penny a page!

K. J. FRANKLIN.

**Techniques in Clinical Chemistry.** Frederick N. Bullock. Published by John Wright & Sons. 182 pp. Price 16s. 6d.

This book is named "a handbook for Medical Laboratory Technicians." Its origin is said to lie in notes made while the author was engaged in teaching student technicians in the West Indies. This history explains its good features and its weaknesses. It is virtually a collection of useful notes, and one cannot believe that anyone will fail to understand the titration of oxalate with permanganate after having been led over this intellectual obstacle race on a leading rein by Mr. Bullock. On the other hand, one doubts whether the description of the measurement of alkali reserve will help the uninitiated or contribute to the knowledge or technique of the already taught.

Other publisher's announcements overleaf.

In this type of book where only generally accepted orthodox methods should be described, one can see no reason why the only technique of differential plasma protein estimation should be one in which the tyrosine groups of protein are measured by their reaction with Ciocalteu's reagent. The flame photometer has taken the place of chemical determinations in the measurement of potassium and sodium, and one would expect this development to be mentioned. Lastly the unqualified recommendation of detergents for cleaning laboratory glassware does not take account of the difficulties these compounds introduce when enzymes are measured.

H. LEHMANN.

**Varicose Veins.** R. Rowden Footc. Published by Duckworth, 110 pp. Price 8s. 6d.

This book is one of a series under the general editorship of Lord Horder, which has for its purpose the explanation of various ailments to the patient.

Writing for the general public about medical matters is always a difficult task and the author must present his subject in a straightforward intelligible manner and yet avoid over simplification. He also has a duty to avoid partisan presentation of controversial material to his uninformed lay audience. Dr. Footc is not entirely blameless in this latter respect in that on two occasions he inserts propaganda for regarding varicose veins as a specialised entity to be divorced from general surgery and to be elevated to, "a speciality of no less importance than that of bones, eyes, teeth and other organs of the body."

While this opinion is perfectly understandable from his point of view it is misplaced in a book of this kind. Again, the general practitioner comes in for some heavy criticism on more than one occasion and while this may be justifiable it is surely wrong in this context. However, the author has succeeded in describing the anatomy, physiology, pathology and treatment of varicose veins in a straightforward manner although the distinction between the sequelae and prognosis of primary varicose veins and deep vein disease is not sufficiently emphasised. I submitted this book to two patients with varicose disease and they liked it. They were both of average intelligence and were interested in their complaint. Unfortunately the type of patient who is most in need of instruction and understanding of his "bad leg", often has a mind as indolent as his ulcers and would perhaps be better reached by a pamphlet written in the form of short definite instructions.

G. W. TAYLOR.

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LIX.

FEBRUARY 1955

No. 2

## EATING OUT ROUND BART'S

THE Refectory has now closed down for some weeks, and students at the Hospital are left without their customary lunching place. There is no doubt, whatever comment may be made on the standard of food served, that the Refectory is in a very convenient place. College Hall at Charterhouse possesses somewhat limited facilities, and a brisk walk is necessary to reach it. This situation may eventually prove to be a blessing in disguise, as it provides an opportunity for the student of an enterprising nature to explore the many restaurants around Bart's, and to transform an apparently irritating position into an exciting voyage of exploration, widening the experience and stimulating the palate. A few of the eating places in the vicinity will be mentioned, in the hope that some small impression will be gained of the wide variety of food which can be obtained.

Geographically, the nearest restaurant to Bart's is "The White Hart," and yet it is among the least known. Ask any Houseman if he has lunched there, and he will reply: "You don't mean to say that they serve food *as well*," in the tone of one who appreciates the true essentials of life. Actually, this restaurant, though moderately expensive, is good value for money. One's first impression is of a comfortable-looking room, and this is confirmed by the very well-cushioned chairs. The service is somewhat unhurried, but the food is always hot. Undoubtedly the plaice and sole dishes are the best the restaurant has to offer, and generous helpings are given. The choice of sweets is somewhat unimaginative, but the quality is quite satisfactory. The restaurant is licensed, and it is difficult to leave without a feeling of well-being.

A few doors from "The White Hart" is "The Rutland." This offers cheaper lunches, and its clientele consists mainly of office

workers from the City. There is a varied selection of main dishes at reasonable prices, possibly the best being the egg, bacon and chips. Sweets are rather poor. Recently, oysters have appeared on the menu, but these are not to be recommended. The service is brisk, in contrast to "The White Hart," but a trifle too affable. The remark, "How would you like your kidneys done, ducks?" is guaranteed to put anyone but the hardened medical student off his food. However, "The Rutland" is a good place for a quick lunch.

On the other side of West Smithfield is "The Bartholomew." It is difficult to say a great deal about this restaurant. The food is most aptly described as "good, plain English cooking." Mixed grills are very good, with the exception of the tomatoes. The menu is varied, and the sweets show a little imagination. A meringue glacé which was tasted, however, proved to be most undigestible. An unfavourable impression is given by the dining room, which is large, crowded, and extremely stuffy. The service, although willing, is grossly inadequate to cope with the numbers.

Those who are willing to venture farther afield will find their exertions amply rewarded. The "Atlantic Coffee Bar" has recently been opened near Holborn Viaduct. The gloss of its freshness has not yet worn off, and, although it is expensive, it can provide a most satisfactory lunch. The ravioli, served piping hot with melted cheese on top, is very good; and there are several other hot dishes. To accompany this, there are really fresh rolls and butter. There is an excellent selection of good Continental pastries. Of course, coffee is an essential, and the "Atlantic" offers nine different varieties. These range from simple black coffee to coffee *Borgia* which consists of "A mixture of coffee,



chocolate and cream with grated orange sprinkled on top" and coffee *Atlantic*, with an egg yolk whipped in. One further commendation—how pleasant it is to have good-looking, well-spoken young waitresses sensibly dressed!

Lastly, the "Charterhouse Restaurant," tucked away near Charterhouse Chambers, is very good value. It compares favourably in price with the others, and serves food of high quality. There is an open grill, with a wide selection of steaks and chops. These are cooked to one's personal wishes, and one person remarked that "it was the best steak he had tasted since the war." Sweets are served in generous portions, and the coffee is very good. One word of warning—it may be very pleasant to sit next to the grill on enter-

#### Commonwealth Relations

We have recently received the following letter from India and are printing it in the hope that some of our readers may avail themselves of the opportunities which it offers. It is not often that Homeopathic Diplomas can be obtained by post. We hope that those who complete the Course and gain the Diploma will make many rupees!

*The Advertisement Manager,*  
*St. Bartholomew's Hospital Journal,* to  
*West Smithfield, E.C.1.*  
LONDON (U.K.)

*Monarch* 0111-2-3.

Dear Sir,

You will be pleased to know that we are preparing a revised list of newspapers for the year 1955 for advertisement of our College.

2. We find your the name of your newspaper in one Press Directory and we wish to make a trail about your paper too for the purposes of our revised advertisement list.

3. In this connection we want to give insert of the following advertisement in every newspaper (Daily weekly & monthly etc.) as per terms given below.

4. (a) In those newspapers who have classified column system, they should print the advertisement under Educational classified head provided that the rates for such an advertisement is less than the charges for an inch column.

(b) Others will print the advertisement in one inch column.

(c) The advertisement should be printed either in English or Hindi no matter

ing from the cold outside, but by the end of the meal one has a definite sensation of being baked in one's jacket.

It is obviously impossible to describe all the restaurants in the neighbourhood. Everyone has his favourite eating place. Several students like to eat in the small cafés surrounding Smithfield Market. This has the advantage of cheapness, but the atmosphere does not seem ideal when, on consuming a steak, one is surrounded by porters reeking of the raw material.

Still, *chacun à son goût*. One can only end by apologising for any omissions, and trusting that the hungry student will set forth and form his own impressions of the eating places around Bart's.

in what ever language the paper is published i.e. the advertisement is not to be translated in the language of the newspaper.

5. You are herewith requested that you may print our advertisement according to our Para. No. 4 One insertion in your paper and send voucher copy along with the bill for payment which will be payed immediately.

6. In this trail if we find that the circulation of your paper and your charges of our advertisement are suitable to our purpose we will enlist your name in our revised list for 1955 and will be sending our advertisement you permanently.

7. If you cannot publish the advertisement without advance only one insertion as a trial please send us a specimen copy of your paper along with the rate card Less discount i.e. the minimum charges for our advertisement so that we may send you advance for the same.

*Note:—The foreign newspapers may mention their charges in Indian currency i.e. rupee. So that the same can be sent easily by M.O. or in British Shillings that we can send easily by British Postal Order.*

*We thank you for your kind Co-operation in anticipation.*

*Yours faithfully,*

*Sd./* Dr. Man Singh, M.D.H.  
Principal:—Old Indian Medical College,  
BARNALA (Patiala) India.

HOMOEOPATHIC DIPLOMA  
By Post. PROSPECTUS FREE.  
Old Indian Medical College,  
BARNALA. (Pepsu) India.

#### Pot-Pourri Party

This was held in College Hall on Thursday, December 30th. There was a large attendance despite the fact that some Housemen attempted to set up a rival party in the West Wing. Drinks were plentiful, although the free buffet rapidly ran out of anything stronger than beer. There was some enjoyable dancing, and, as a climax, some of the Ward Show acts were performed, including the "Three Parsons," "Three Little Maids in Blue," and the notorious "Winkle."

#### A Case of Mistaken Identity

Some of the nurses from Hill End are very naive. Whilst being made up for the Pot-Pourri this year, one was overheard asking Bert whether he was a Chief Assistant or just a Senior Registrar!

#### N.A.P.T. Conference

This Conference will be held at the Royal Festival Hall from June 21st to 25th. Although the Conference will be especially concerned with tuberculosis in the Commonwealth, the campaign against the disease is, of course, a world problem, and some of the foremost authorities from many different countries will be amongst the speakers.

The provisional programme includes talks on "The Preventive Outlook Today," "Child Hygiene and Infection," "Tuberculosis—A Problem of Different Races," "X-ray and Tuberculin Surveys — Their Meaning and Interpretation," "Choice of Drugs in Medical and Surgical Treatment of Tuberculosis," and "The Psychology of the Patient and Relatives as a Factor in Successful Treatment."

#### Ward Shows—Christmas 1954.



*Harem Scarem*

## ON PRACTISING GENERALLY

by R. G. D. NEWILL

My parents intended me to become a general—via the family regiment, of course. However on a certain date during the war, in the wilds of Somaliland, I suddenly appreciated how much suffering humanity would miss me if I pursued my parents' ambition. I decided that I had already spent long enough in the army and resolved to become a Sergeant-Surgeon to the King. This high ambition satisfied my mother, who knew that I was so brilliant that I would certainly be the King's Surgeon in a much shorter time than I would become a general.

So I applied to Bart's, since Bart's was the only hospital that I had ever heard of; and as Bart's, in 1946, was still accepting male students, the Dean agreed to try to help me towards fulfilling my high ambition.

While doing anatomy reality hit me; I suspected with horror that to be a surgeon to the King one would have to know anatomy quite well (I really thought so—I was medically naive in those days!). Now learning anatomy interfered rather a lot with rowing, so with very little reluctance I changed my plans and decided that a royal physician would do just as well. This ambition was still higher than my colleagues, who just wanted to be ordinary specialists in any subject; except for one peculiar fellow who actually wanted to join his father in general practice.

During my clinical years my ambition degenerated to the level of my fellows, but of one thing I was certain; I could never for one moment consider a career in general practice. From the letters that accompanied patients to Bart's, I judged the local G.P.s to have attained the nadir of cluelessness. As a houseman at Bart's I was frequently dragged out of bed at night to order injections of penicillin and other trivial therapeutic procedures for patients who arrived with grubby little notes scratched on the back of visiting cards or prescription forms. How I despised those G.P.s. I had always felt that it was better to know a lot about one subject than a little about them all, but the G.P.s around Bart's appeared to know a lot about nothing or nothing about everything.

Now, in the past many men have achieved fame because their wives stimulated them to greatness; far more, however, have abandoned their high ambitions because their wives were quite content to be ordinary humble women—raising a happy family in the country. My wife appeared to be one of the latter. She viewed with horror the prospect of being a registrar's wife for the next ten or twenty years, wandering round the country from hospital to hospital, never getting settled. By the time I left my Alma Mater I was beginning to think on similar lines. Those 5½ years in the army could not be ignored and I too was beginning to feel the urge to get settled. But the only alternative appeared to be—Horrors!—General Practice!

The transformation occurred rapidly, and the necessity of having more than 7s. 10d. in the bank compelled me to do G.P. locums—in London, for those despised G.P.s. I then saw the other side of the picture. As a student I had never understood how a doctor could go on treating a patient with Mist. Expect. and Linctus, when the X-Ray now in my hands showed a T.B. cavity. It had seemed the height of incompetence then, but it became more understandable when I was faced myself with dozens of patients, all with assorted coughs.

Many of these would soon have recovered from their splutters if nothing had been done for them at all; by giving them a cough mixture I got the credit for curing them instead of nature. Most of the rest were chronic bronchitics who had been happily coming up for years for another bottle or some "breathing tablets." The proportion of chesty patients who had serious disease was infinitesimal compared with the total number who were merely "bronchial," so why should I pack them off to hospital for X-Ray on their first visit?

To my surprise I enjoyed those three months in general practice. For the first time I was my own boss, and could put into practice my own ideas on treatment. For the first time I could appreciate the infinite variety of human ailments and could make

use of everything that I had learnt in every department at Bart's. I began to consider the advantages of general practice instead of the disadvantages. The first of these seemed to me to be the variety of general practice. Patients go to their G.P. with every conceivable complaint and problem, and the vast majority of these can be dealt with by the doctor himself. If he has a cottage hospital at his disposal, or if, as is frequently the case outside London, his local hospital will do X-Rays and pathological investigations for him, he can refer as few as 2% of his patients for a specialist's opinion.

The General Practitioner can therefore treat every part of his patients, and is free to interest himself in any particular speciality he pleases. He does not, like the registrar, have to forget half of what he has been taught, in order to learn one subject thoroughly. Neither, like the specialist, is he obliged to stick to one particular branch of medicine; and these days a registrar is almost compelled to stick to his chosen speciality. It is no longer possible to chop and change between general practice and surgery or some other speciality as it was in the days when practices could be bought, and a G.P. could be a surgeon at his local hospital without having numerous higher degrees and diplomas. A G.P. can experiment with a certain treatment in a group of cases, then if he likes he can interest himself in something totally different. One of the doctors for whom I worked in London regarded himself as an authority on varicose

ulcers, and his results were certainly better than those of most hospital clinics, because he took a personal interest in each case.

The G.P. is independent. Even an assistant does not have to be perpetually pandering to his principal, as a registrar does to his 'chief'. He has more spare time than is generally supposed, and his spare time can be spent in outside interests instead of studying perpetually for higher examinations. Most G.P.s now work in partnerships and group practices allowing time on and off duty, and even the single-handed doctor frequently works a rota of days on duty with other doctors in the neighbourhood.

Lastly, a hospital is a somewhat restricted institution which tends to revolve round the whims and peculiarities of its consultant staff. A G.P. is free of this atmosphere where everyone thinks and talks of nothing but medicine. He makes his friends from all sections of the community, whereas the hospital doctor who is perpetually surrounded by medical men and women, tends to make his friends from among them. So the G.P., in general, tends to have wider interests and a broader outlook on life than his opposite number in hospital.

No! Let others spend the best years of their lives competing for the limited places in Harley Street, and the doubtful contentment which these positions bring, but give me the independence, and the broader and more fascinating life of a General Practitioner.

---

### SO TO SPEAK . . .

#### In MOPs:

*Of a patient with an aortic aneurysm:—*

This man has been in the Hong Kong Police Force for 25 years—I think that's better than a Wassermann any day, don't you?

#### On a Fever Course:

And if you don't spot scarlet fever, is your face red!

## CHRISTMAS IN BART'S — 1895

by ALBERT PICKARD

EARLY in October, 1895 I was admitted to Bart's in Matthew Ward. I was more or less unconscious when I was brought in—I have a very hazy recollection of a copy of "The Angelus" somewhere; a nurse sitting by my bed, much to my annoyance; a group of young men around my bed; and an old gentleman bringing people to see me late at night. I remember two nurses who used to do all sorts of things for me, and my telling a nurse called Sister that I was not stopping on the boat any longer because there was smuggling going on there, and all sorts of delusions—very real at the time and clear in my memory today. Again I used to wonder why I never got any real food—nothing but milk, a filthy substance they called whey, and brandy in everything.

Then slowly sanity returned, and one morning, weeks after I had been admitted, a short, dark gentleman came and told me I had been very ill and that if I did what I was told, and helped by being a good boy, I should get well and be able to go home.

After that I began to take an interest in what was going on around me—but how hungry I always felt! One day doctor asked if I would like an egg and bread and butter. I had wonderful visions all that day—but the reality proved to be a slice of bread  $1\frac{1}{4}$  in. square, and the yolk of a very lightly boiled egg—I think I made it last nearly an hour!

By then I knew I had typhoid with a perforation, but I was not scared. I knew then how to account for the bad patches—and there were plenty, but I had complete trust in doctor, sister and nurses and felt they knew their job.

Years after, when I was warded quite suddenly and unexpectedly, and could see things from a detached angle, I *knew* what a job they had had with me and saw how they must have worked to save me, just an East End woodworker, as part of their everyday job. God rest them.

I did not feel much better after my egg, and when nurse came to take my temperature, she fetched the doctor. A few minutes later he came along to me, holding his candlestick—yes, they had candles in those days, complete with a glass chimney—and asked if

I felt all right. Then, turning to the nurse said: "Knock off all solids"! It was three weeks before I had another egg.

Christmas began to loom in sight. I could hear choirs singing at night and from after events think they must have been in the Great Hall. There was no Nurses' Home then—they were all in those old houses in Little Britain. Sister had a room on the same floor and ward, and my friends told me she would often come out in her dressing gown about midnight to me.

Enquiries among friends for copies of the "London Illustrated," "Pear's Annual," and the "Graphic" with their Christmas Numbers brought in a lot of lithographs of famous pictures; then there were paper chains to be made by the patients who were up.

Sister had arranged for the Sweep to come the week before he was due. We used to have the Sweep once every three weeks, for there was a big fire of the old kitchen type which the patients used to sit round when they were up. The ward clock was of an American type and it would only go on its side on the hob. The Sweep always came about 3 a.m., and he was followed by the men who cleared the soiled linen. My recollections are chiefly about the ironclad boots they wore.

Christmas Day that year was on a Wednesday and relatives had been warned on the previous Sunday that the official times would be strictly adhered to. The few days before had been rather hectic, holly and evergreens coming in by the hamper, pictures going up, fairy lamps being put on every shelf that would hold them, and students all over the ward at odd times. I was promised that I should be allowed to assume at least an horizontal position and the blocks would be taken from the foot of my bed.

Fortunately we had no bad cases and it was not our Duty week, so it looked as though a large proportion of the patients would be up for tea, which turned out to be the case—I think there were only six of us in bed.

On Christmas Eve, much to my amazement, Sister came and asked me what I would like for dinner next day. I thought she was joking at first, but she meant it. I had a

choice of pheasant, chicken or turkey. I chose pheasant.

The big bell of St. Paul's tolled eight, the lights went down, and all was quiet. Nurse came on duty and told me she was so tired and had yet such a lot to do with filling all the children's stockings. I told her to fill a 6ft. 4in. Guardsman's sock—I had persuaded him to hang it up, and it certainly cheered her when I suggested she filled it with cinders from the fire.

I then went to sleep for my usual two hours, after which it was time for food, or medicine, or brandy. I never, during the whole  $5\frac{1}{2}$  months I was an in-patient, had more than 2 hours continuous sleep.

Sure enough, about ten, up came nurse to the cot at the foot of my bed with 2 operation stockings crammed with toys and tied them to the posts. She then tied the sock half filled with cinders and screwed up papers to the Guardsman's bed. Poor man! He was so tall that he and nurse were always in trouble for his untidy bed!

I heard St. Paul's chiming twelve, a little piping tinkle from the Hospital clock and Christmas Day had begun.

I was to be washed at four, so as to be able to make my Communion, all nice and clean, at six o'clock, with about five or six others in the ward; I should get my breakfast soon after (a WHOLE, lightly boiled egg) and one thin slice of bread and butter.

The fun started with the little ones about two a.m. I could see one little curly head come up and start crawling to the foot of his cot—there was not much light from a flat flame gas burner turned low—and I growled a loud "Shush" and heard it repeated lower down the ward from another patient near a cot. This went on at regular intervals until nurse took a hand and stopped it.

I was duly washed at four, a clean shirt put on, and my hair brushed out of my eyes. Then the Vicar came. He was a dear old man—Rev. Osler by name—there is a tablet to his memory on the north wall of the Chapel. After the service he wished us all a Happy Christmas, and went off to repeat the same thing in as many wards as he could. I expect.

I began to be hungrier than ever when my breakfast appeared. Things began to quieten a bit after the early morning hubbub, with washing and bedmaking, and the efforts of nurse to put nightlights into the fairy lamps

which were everywhere, and then strange clinical clerks began to appear. My own special clerk, a Canadian named Roach, turned up—he had been a brick to me and I learned after he had sat through several nights with me—and then Sister appeared with the post, and wished everybody a Happy Christmas. I had two or three letters and cards. Then she came straight up to me and teasingly said she was ashamed of me—there were 26 cards in her apron, all for me—and all from girls! Doctor appeared from nowhere, and I had to bear a lot of good natured teasing and chaff.

After the post came official visitors including Sir Dyce Duckworth and his lady. He was a very old consultant physician—they told me he was over 90—and he came and sat by me and asked a few questions about some scars I had.

Nurses were bringing friends in and then Matron appeared in her Sunday best with supporting acolytes. She was a rather short lady, and she always wore what I think was called a feather boa. It must have been three yards long and it hung over her shoulders down to her waist. It must have been pinned on her black dress in the form of a letter U and the lace streamers from her cap went inside the U. I never saw them in any other position. Matron sailed away wishing us all a Happy Christmas and then the Vicar and his daughter came, distributing small presents. I got a book about a boy who went fishing instead of going to Sunday School and what happened to him! I tried to give it to the Doctor but he didn't think it suitable for his tender years and vanished. The blocks were knocked away from my bed, and I was allowed to sit up in bed for my dinner. Then Doctor came in with the Turkey!

I had my tiny little piece of pheasant, some mashed potatoes, and then a little custard and a tiny bit of Christmas pudding! What an unforgettable meal that was! But I also had what no one else in the ward had—half a pint of Guinness, 2 ozs. of port and 2 ozs. of brandy!

Quiet began to descend on the ward and nurse told me I must go to sleep before tea. I was already beginning to feel tired in my new position and asked to be allowed to lie flat, but I could not sleep. All the nurses in the block were having a "beano" in the kitchen of our ward, and it was good to hear their laughter after all their efforts and work for us.

At three o'clock visitors came. The ward looked beautiful. Someone had started lighting the lamps, and there was a long table for all patients in both front and back wards to have tea.

After the visitors had gone, there was tea, and after that, the wards were thrown open for inspection.

Seven o'clock came all too soon, with bed-making and washing. As a special treat I had Bengers food instead of Mellins! I lay waiting for the wardmaid to polish the floor. The swivel polishers in use then weighed 28 lbs., and when they hit the blocks that my bed rested on, it was not pleasant.

Sister said prayers, and there was one that has since disappeared, but it had special significance that night for me. I believe it ran something like this:

"Bless, O Lord, all the means being used in this Hospital for the recovery of the sick and suffering." When Sister came to me after lights out and asked me if I had had a Happy Day, I could only say "Thank You".

We had a lantern show next night given by the Doctor and every one was looking forward to the concert in the big Hall on New Year's Eve.

However, Doctor was not taking any risks as I was so far on the road to recovery, and would not let me go.

So Wednesday came and I was left in the ward with just one other patient. There was some lovely singing which I could just hear in the distance, but it was not a nice experience and I was very disappointed. They were all back by seven-thirty, except one man, who was next to me. He came back just after eight and said he had lost himself in Little Britain and couldn't find his way back. After lights out I asked him where he had really been and he said he had been having a quiet smoke in a corner of the square! Smoking was not allowed then.

So the Christmas season ended for me and has left such happy memories. By a merciful providence one forgets all the bad parts and remembers only the good, and every October I manage to get to that so beautifully restored Chapel just to think with gratitude of all those who did so much for me and have passed on. Some of their names are in the Book of Remembrance in the Chapel—Consulting Physician Sir Dyce Duckworth, House Physician, R. B. Christopherson, Sister Bramwell, Nurses Flood, Salisbury, etc. God grant them light, rest and peace.

#### SUNSET

Blue streak, buff streak  
Splashed on a purple sea,  
Autumn-tint ochre leaves  
Crowning a pointed tree.  
Treasures prized by the East,  
Fire from dragon's lungs;  
Cauldron of molten mist,  
Serpents' tongues.  
Magic mountains of gold  
Laid down a million years,  
Composite yet ever changing,  
Silent as daybreak's tears;  
Pathway to perfect worlds,  
Staircase stretched from the sun,  
Leads to a land of brighter fortunes:  
Find them and our heritage is won.

J. D. P.

## THE TREATMENT OF THE HEMIPLEGIC PATIENT BY PHYSIOTHERAPY

by MISS WAREHAM

THE treatment of the Hemiplegic patient has advanced considerably in the last few years, the stress being laid on immediate movement and early ambulation.

Naturally the prognosis depends on the site and severity of the lesion, but nearly all patients can become self sufficient unless their mental condition has so deteriorated as to prevent them co-operating in their treatment.

The principle of physiotherapy is to restore functional activity and simple 'habit' patterns of movement before the patient realises the extent of his disability; and to prevent deformity from arising.

It cannot be stated too strongly that the maximum benefit can only be obtained by early treatment. If the patient be left for three to four weeks to 'rest and recover,' new false postural reflexes become established with spastic deformities of arm and leg. The essential habit patterns of body balance and walking will be lost and the patient will, even in so short a time, have become used to these, have unconsciously accepted them and so be quite unable to correct them. Thus irreversible conditions will have arisen which no amount of later physiotherapy can correct. Some activity can be obtained by starting late, but of a deplorably poor standard. Also, if early exercises are not given, great muscular weakness occurs, making walking even more difficult.

#### Early Treatment

As soon as consciousness returns, simple cock-up plaster splints should be made to prevent flexion deformity arising in the hand, and foot drop in the lower limbs. Thus, any recovery in the extensors and dorsi-flexors, is not lost as a result of the patient being unable to appreciate it because of the overriding pull of the flexors.

Full range passive movements are given, slowly and rhythmically putting all limb joints through a full range.

It is especially urgent to obtain full elevation of the shoulders several times a day, gently coaxing the limb up despite the discomfort it causes the patient. If this is not done the shoulder will become permanently stiff. A pulley circuit is a great help as the patient can work on his own. While movements are being performed, the patient must co-operate by trying to relax and appreciate the movement. (One of the difficulties for these patients is the considerable proprioceptive loss.) Later, the patient must try to perform the movement actively.

#### Balance

This must be taught at once, starting about 48 hours after recovery of consciousness. The patient tends to fall over to the affected side and is quite unable to correct this. The physiotherapist helps the patient into a straight position lying against his pillow and then gently pushes him towards the normal side whilst saying 'don't let me push you'. Almost at once the patient resists this pressure, thus unconsciously using his trunk muscles. This is then repeated, pushing him towards the affected side and making him resist so making use of simple reflex postural movements.

The next day this is done sitting up, then on the side of the bed, and, on about the fifth day, in the standing position (with a tripod stick).

The patient must also be taught, within the first day or two, to move himself round by putting the unaffected hand on the bed behind him, hending his knee, and then forcing the hand and heel into the bed, so lifting his body. He is taught to turn in bed in a similar way.

This is of tremendous value in raising the patient's morale and a great help to those who are nursing him.

#### Leg Movements

Passive movements progress as soon as possible to assisted active, and then free



*Mrs. K., 12 days after onset. Lying down, her right leg still appears flaccid. Upright, she can walk a little alone, but only with the "Tripod."*

active movements—stressing relaxation and control (especially of the quadriceps). Next the patient swings his legs sitting on the side of the bed.

Where the blood pressure and pulse are satisfactory one should aim at getting the patient walking in under a week. This may sound revolutionary but in all the cases treated here by this method there has been no second cerebrovascular accident.

The patient is taught to balance holding a tripod stick in the normal hand and pressing well onto it while the physiotherapist stands on the affected side. Walking is then attempted with the stress on rhythm—stick forward, "good leg forward" and finally "affected foot forward." The physiotherapist aids the affected foot to swing forward with the foot and knee flexed: it is amazing how a leg apparently flaccid in bed has tone when the patient stands.

From this beginning, it is usually only a few days before the patient can walk on his own without dragging his foot (the physiotherapist giving moral support by walking alongside). This early walking is not possible without a tripod stick, as its great stability gives the patient confidence in balance.

The patient is, in fact, got up before a spastic foot drop has developed and his gait, while probably not quite normal, will never become that of the classical footdragging.

#### **Standing Up and Sitting Down**

This must be taught as soon as the patient is walking—the average hemiplegic loses this simple action. Until he can get up from a chair and sit down by himself, he will remain dependent on other people to get about, even though he can walk.

At the end of 2-3 weeks, the average patient has a good sense of balance and can



*Three months later, Mrs. K. carries her chair to put it away after Class. Recovery is just beginning in her right hand.*

stand and walk on his own. His shoulder joint should have free movement, though it is unlikely that much voluntary power will have returned.

#### **Further Treatment**

This now aims at making the patient as self sufficient as possible. Walking and exercises for the legs must be practised. Stairs are introduced and all forms of stepping, turning, and finally walking with the eyes shut are practised.

#### **Arm Movements**

These are usually very slow to recover and few patients regain full power and control.

At first the patient must be taught to do things for himself using his unaffected hand, to feed, wash and dress himself using his normal arm, and gradually, as recovery occurs, helping with his affected one.

These patients are not given 'exercises' so much as functional activity—attempting to use existing brain-patterns. For example, it is of little use to ask a hemiplegic to stretch his fingers out, but if a handkerchief is put in his hand and he is asked to drop it, he may do this and stretch his fingers without realising it.

Months of patient training now lie ahead and in many cases quite a useful hand may result.

Ideally, after 3-4 weeks these patients should join in a class where the competitive spirit, comradeship, and general atmosphere of cheerfulness have a very real effect in spurring them on.

Finally the patient's family must be asked to co-operate. It is only too common that an anxious wife or family retard recovery and do real harm by being too solicitous. They do not encourage the patient to be useful and active, and help wherever possible in the



*Arm exercises in the Class. [The patient wearing the toe-raising device was treated on "old-fashioned" lines and not got up early.]*

house (carpet sweeping action is a particularly useful exercise, also shoe cleaning, mopping, etc). There are some very helpful gadgets made that help women, especially with their housework: although these should not be encouraged until a considerable time has elapsed.

#### Conclusion

The outlook for the hemiplegic patient has completely altered under this regime—

instead of being dependent, static and miserable, they can again become quite self sufficient. The social value of this is very great in terms of happiness of a patient and his family.

No patient should become bedridden or chair-ridden unless his mental condition has severely deteriorated. Mild cases can be completely rehabilitated. However, these results can only be obtained by immediate, careful and skilled treatment.

---

#### WANTED

The complete set of FLETCHER ENGRAVINGS of St. Bart's Hospital, offered in 1953. Enquiries to *Journal* office.

## BUMBLING

by J. B. DAWSON

THIS curious word came to be used as a code to prevent the subject of "Flying" being inflicted on one's friends who were not intoxicated by aeronautics.

It is strange how three-dimensional movement carries its owner into rhapsodies which become all too tedious to the non-addict. There can be only two sports in which such motion occurs to any degree, and for any length of time. One is underwater exploration with an Aqua-lung; the other is aviation in all its branches.

Let me urge the beginner to accept the first chance he has of flying in a small aircraft, or of gliding. He will, almost certainly, be frightened, and deep down inside be firmly convinced that he is going to be sick. The latter may most unfortunately and all too realistically be borne out at first, but it passes rapidly with the apprehension of novelty. The question of fear, although horribly real at first, will go; and in its place comes a sense of control, but yet release. Control in the ability to handle this fearsome, pulsatile and graceful beauty, and a release of spirit, which is hard to enlarge upon in mere words.

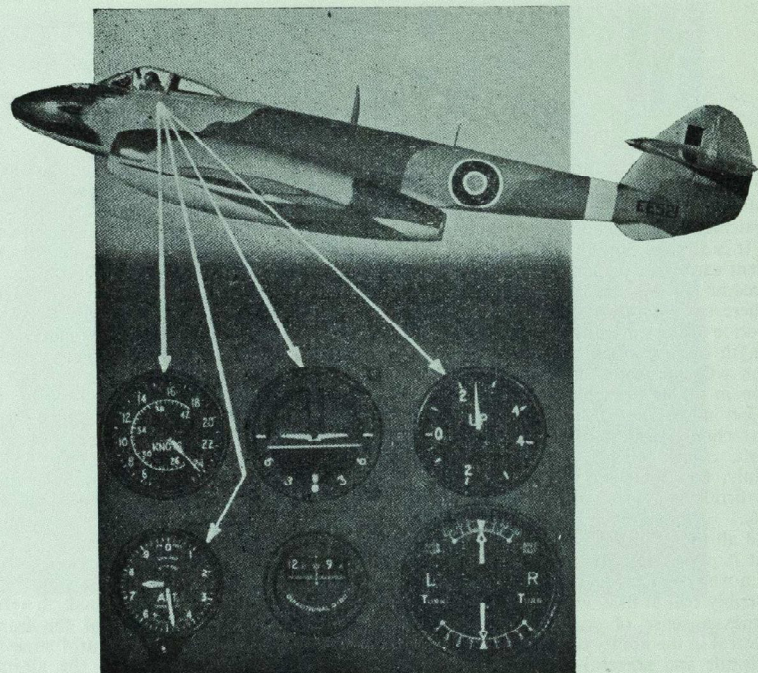
Many boys nowadays are introduced to flying while in the Air Branch of their "School Cadet Force," and I can remember a splendid succession of trips in Ansons, Oxfords, Dakotas, and especially one in a Dominie while at school. This particular trip occurred over Norfolk and the North Sea. Some nine or ten of us had boarded this dependable old biplane, which is still used by BEA for runs to the Channel Islands, the Scilly Isles and such short services. It was under the command of a very competent Polish flight-lieutenant. He provided a glorious joyride, and apprehension had slowly left us, when he decided to demonstrate what is technically known as "The Unusual Positions." In the ensuing five minutes he had reduced most of us either to complete nausea or quivering heaps of protoplasm. This I am firmly convinced is the prime example of how not to encourage the young! I believe the gradual acclimatisation of a take-off, a gradual level flight,

gentle and increasing undulations, loops, rolls, and full aerobatic demonstration is a better form of encouragement.

One now finds oneself infected and thirsting for more. Become introduced to the local flying club, join, and begin training. An alternative to this is to join a University Air Squadron, or make friends with a man who owns a small private aircraft and go along with him when he travels about. These last two suggestions enable you to cut down the expense aspect of the initial training. After about ten or twelve hours' flying your instructor will one day climb out of the aircraft and send you on your way "solo." The initial amazement goes, and you find yourself far too busy with checks all the way round your first circuit of the aerodrome to worry, and then it is over.

You are now allowed to be alone with this purring engine which in time becomes a part of the surrounds, and therefore unnoticed. The vibration of the frame, and gentle buffeting of the control stick between your knees, develop into the all-important automatic reflexes, and you are allowed away from home. You soar up into the beauty of the dazzling cloud tops while mankind dwells in a grey day below.

Mother Nature also has her ugly moods, and has a fair selection of aerial counterparts to the terrestrial hurricane, flood, or blizzard. She in her majesty one day decides to increase your flying education, and while you fly along in your little "glass-house," you suddenly find yourself confronted with a towering mass of flashing thunder cloud some forty thousand feet in height, which is already spitting at your windscreen. The purring engine becomes insignificant. All checks are made—those routines instilled during training come forth, and you categorically go through them. *Engines*: throttle, fuel, magneto, switches, oil temperatures and pressures, and air intake. *Air-frame*: brakes, flaps and control. Lights go on as you know full well it will be dark inside it all. You tighten your straps, check your height and instruments, and then attune yourself mentally to a fierce battle. Your senses



*Typical Instrument Panel.*

are no longer of use to you, and you must believe implicitly in the instruments.

Your flying experience is now sufficient to consider putting it to more practical and mundane uses, such as a week-end trip to the Continent. You choose an aerodrome in the south-east of England to cut down mileage and thus expense. Also it is preferable to pick one with resident Customs because the last aerodrome you leave from when travelling from country to country must be a Customs centre. You then arrange for an aircraft, and buy your maps. You load up your luggage, and after seeing the Customs Officers, who are extremely kind to private fliers, fill up your Flight Plan with Air Traffic Control. This means that the authorities know your proposed course, speed, height, and type of aircraft; and can

not only notify your destination of your impending arrival, but can call on rescue services if you become overdue. The meteorological men provide you with the weather details over your route, and the likely tendencies for the next few hours. You can question them about the most sensible course to take, and any other slight worry that may be bothering you. Then you compute all your navigational problems against fuel load and consumption, the all-up weight, and the position of added baggage in the aircraft, which is highly important from the point of view of flying trim.

The aircraft itself is the next object of attention, and you will have been taught a routine method of inspection so that it becomes habitual and complete. You usually check that there is fire equipment to hand,

and that nobody is parked near you or behind you, so that when you start the engine, all will remain peaceful. Then starting at one point on the aircraft, work round her, checking as you go. Fuselage, flaps, wing surface and ailerons are checked for full movements and no damage, lights, aeriels and other external appendages, engine and propeller, fuel and oil levels, wheels and brakes, the tail assembly with its vital control surfaces. A similar sort of check now occurs in the cockpit. Switches, engine controls, instruments, security arrangements and radio are tested. Then comes the moment for starting. Fuel on, switches on, throttle set, priming, and contact !! The engine soon settles down. You get the barometer reading which is set on your altimeter, and the runway direction. You then taxi out—go through about ten take-off checks then obtain clearance from the "Tower," which is air traffic control, and you are on your way.

Making your passenger navigate, you travel from place to place, whilst coping with an endless succession of navigation checks, radio calls and mathematics, maintaining a watch, and listening for any aberrant sensation or change of note in the engine.

While you travel along an endless watch for other aircraft which may try to approximate too closely is kept. It is quite extraordinary how like Piccadilly Circus the air

can become in a short space of time if one relaxes. Especially this occurs when approaching a big airport such as Ciampino in Rome where on landing we found a large Constellation landing a few hundred yards ahead of us, and a Dakota snarling on our tail. Obviously, without a good lookout things may go very wrong. To help prevent a catastrophe there lies that group of rules and regulations which channel the air into regularity. Accidents are rarely the fault of those blessed beings on the other end of the Very High Frequency two-way radio, whose mere voices, be they women or men, can turn chaotic depression into ordered jubilation. Even if directions arrive in an impeccable flood of Spanish, the gist of it is very similar to the Greek ones heard yesterday. It relieves the worry which rapidly arises as the last gallon of the 15-gallon tank is registered on the indicator, and thoughts of long, flat fields of no fixed address come to the fore. Finally down you go, and the surrounding welcome sweeps your aircraft off to a hangar for the night, bustles you into a car, fiddles endlessly with your documents, and shows you the way "to town."

Company in the air can be enjoyed in another form: that of the flying formation. In this case you set out with a preconceived form of hand or radio signals, as in the "Highway Code," and proceed to



*A Typical Light Aircraft—Auster J4.*

manoeuvres which any visitor to a Battle of Britain display has conceded due recognition. However, from the pilot's point of view this is probably the most tiring form of flying. It requires *constant* variation of throttle (accelerator) setting, and a *constant* readjustment of the control stick to keep one's aircraft in an absolute relationship to the formation leader. Each man in a formation has a number, and has a set place in a particular formation, thus:—

Vic formation

†<sub>1</sub>  
s † †<sub>2</sub>

Echelon

Starboard Port

†<sub>1</sub> †<sub>1</sub>  
†<sub>2</sub> †<sub>2</sub>  
†<sub>3</sub> †<sub>3</sub>

Line Abreast

† †<sub>1</sub> †<sub>2</sub>

Line Astern

†<sub>1</sub>  
†<sub>2</sub>  
†<sub>3</sub>

He has a particular method by which he changes from one formation to another. It can be seen that the leader is a man of great responsibility. He is the only man who has not got his eyes glued to his neighbour, and is therefore solely responsible for the navigation and positioning of his formation. He

must turn at slow "rates of turn," or the outside man may lose position even with full throttle, while his inside man may be dangerously near the point of stalling. The leader must also never use full power, or one of his men may fall behind if he has a weaker engine, and engines do vary enormously from aircraft to aircraft. This control of power is obviously vital when landing or taking off in formation, as each man must have a good margin of variation from his leader in order to keep position. A leader always gives his commands in triplicate either by hand or radio before he commences to change the *status quo*. This is partially to crash the barrier of concentration his men will be exerting, and partially to give a due warning. Thus it will sound something like this:—

"Red Section—Echelon Stbd.—Echelon Stbd.—Go."

It is truthfully said that formation flying improves one's flying, but the improvement is fully paid for in cold sweat and mental stress.

Finally comes the gyrations in the third dimension for their own sake. The glorious feel of a perfected loop, the sickening lurch of a bad slow roll, and that moment at the top of a stall turn, where you face heaven, and yet may slide or spin earthwards; all these form fragments of the whole. In time you find you can roll, loop, and perform all the figures on your side or upside down.

I should like to finish with a final point. This is to emphasise that this glorious sporting achievement of man can be done privately and very cheaply, and among the flying brethren there is great *esprit de corps* to encourage anybody who is genuinely keen.

An owner who buys a light aircraft at, say, five hundred pounds, which will do approximately twenty miles to the gallon in still air; with an annual certificate of airworthiness, inspection, and minimal servicing, can compare very favourably on the financial scale with the owner of a sixteen horse-power car.

Therefore, good luck to all those who try, and let your watchword be "Scramble and Bumble."

## WILLIAM GILBERT OF COLCHESTER

by A. G. DAWRANT

COLCHESTER is a delightful town of Georgian houses, of picturesque Tudor buildings and old parish churches. In the ancient Church of the Holy Trinity with its late Saxon tower of stone interspaced with Roman brick is the last resting place of Dr. William Gilbert, "Physician and the founder of the science of electricity."

This remarkable Elizabethan scholar was born in 1544 at the very end of the reign of Henry VIII. His father was Jerome Gilbert, a prosperous burgess of the town, and recorder of Colchester. He studied at St. John's College, Cambridge, and then travelled to the Continent to meet men of learning abroad. As a matter of course he went to Italy, where he took his degree of Doctor of Medicine. There are no records of his travels in Italy, but it is almost certain that he visited Padua, where Fallopius and Vesalius had lately taught, and which was then, and which long remained, the centre of scientific medicine in Europe.

On his return to England, he took his degree of Doctor of Medicine at Cambridge and became senior Fellow of St. John's College in 1569. In that year Gilbert came to London to practice and entered the College of Physicians, founded 50 years earlier by Linacre.

There is only one contemporary portrait of Gilbert still in existence, and this hangs in the Bodleian Library in Oxford. It shows him as a man of some bearing and dignity, gentle in character and yet shrewd in perception. Fuller, writing in 1662, says that "his stature was tall, complexion cheerful and a Happiness not ordinary in so hard a student and retired a person." Gilbert never married and of his private life nothing is known.

Medical practice at this time was carried on not only by the physicians, but also by the apothecaries, who kept shop and sold physic, and by the barber-surgeons, who dressed wounds and cut off limbs. The physicians were mainly men of learning who had spent years of study at the University

and chosen "that part of the Aristotelian learning which dealt with life and its manifestations as the most choice of learned pursuits." Such physicians were able to devote their leisure time to the study of philosophy, or mathematics, astronomy or the investigation of natural phenomena. Gilbert belongs to this last group and it is interesting to speculate why he turned his attention to the study of magnetism.

During the early years of the Elizabethan reign commerce and trading abroad was encouraged and there was a great increase in exploration and voyages of discovery. Sea captains such as Sir John Hawkins and Sir Hugh Willoughby were the popular heroes of a sea-minded nation. So was Sir Humphrey Gilbert who explored the Americas and was later drowned when his ship, accompanying the "Golden Hind" on a voyage from Newfoundland, was sunk in a gale. Gilbert, we are told, was related to this intrepid mariner.

The magnetic needle, as an approximate means of finding north, had been used for some centuries, but an instrument was needed which would be of far greater value to the explorer; one which would enable him to find his position at sea when the sun and stars were not visible.

This need may have prompted Gilbert to begin his studies of the loadstone which resulted, among other things, in the description of an instrument for comparing the dip of the magnet with latitude and which, Gilbert believed, would enable the mariner to estimate his true position.

After 30 years' research, Gilbert published his great work on the magnet, "De Magnete." In it he uses for the first time the methods of experimental investigation instead of the speculative theorizing of earlier writers.

The new era of rational scientific investigation is usually said to begin with the publication of Harvey's book on the circulation in 1628. Significant though Harvey's researches were, it is important to bear in mind



that Gilbert published the results of his investigations over a quarter of a century earlier, in 1600 and this establishes Gilbert among the first natural scientists and one of the founders of the experimental method of investigation.

#### The Advancement of Learning During the 16th Century

THERE were many factors leading to the change in attitude of men of learning in Europe during the latter part of the 16th century. The ancient classics were re-discovered following the invention of printing. The revived knowledge of Greek and Greek teachings, together with the questionings which arose through religious differences, affected medicine as well as other branches of learning. In medicine the need for a new approach for the understanding of the nature of disease was brought home to physicians by the devastating epidemics of the time.

Leonardo da Vinci (1452-1519), over a century before, had made penetrating observations in almost every field of natural science; including architecture, mechanics, optics and astronomy. He, and other great artists of the early 16th century, such as Michelangelo and Raphael, were also anatomists of distinction, for the advent of art which studied the human body in detail demanded a knowledge of human anatomy.

But the real medical revolution was initiated by the Fleming, Andreas Vesalius (1514-1564) with his work on the fabric (i.e., workings) of the human body published in 1543, when he held the chair of anatomy at Venice. In Padua, this position was held first by Fallopius (1523-1562) and then by Fabricius (1537-1619) who is remembered for his studies of embryology and for his description of the valves of the veins. Among Fabricius' pupils in Padua during the last few years of the century was William Harvey, later physician to St. Bartholomew's Hospital.

Parallel with these great advances in medicine, was the progress being made in the fields of astronomy and mathematics. Copernicus (1473-1543) had stated that the sun and stars were at rest and that the earth revolved round the sun—a revolutionary, indeed heretical, belief to hold in the early 16th century. Galileo (1564-1642), who entered the University of Pisa in 1581, was also unwilling to conform to the rigid

acceptance of Aristotelian doctrine. While Professor of Mathematics at Pisa, he demonstrated that all falling bodies, great or small, descended with equal velocity, contrary to accepted belief. He was appointed to the Chair of Mathematics at Padua in 1672, and it is said, his lectures attracted scholars from all parts of Europe.

Servetus (1511-53) who demonstrated the pulmonary circulation of the blood, Stevinus (1548-1620), who enumerated the principle of the triangle of forces, and Bruno (1548-1600), a follower of the Copernican heliocentric theory, were also among the most brilliant thinkers of the late Renaissance.

Gilbert would be profoundly influenced by what he saw and learned during his four year visit to Italy. After his return, his rooms in Knightbridge Street became a meeting place of men of learning in London, and although there are no records of the proceedings at these meetings, or of those who attended them, Gilbert's house may be regarded as amongst the earliest scientific association in London. It preceded by a generation the Academy of Lynx, founded in Rome in 1603 (the year of Gilbert's death), amongst whose members was Galileo.

In the London of this time, two other men stand out as scholars of comparable genius: they are Sir Francis Bacon and William Harvey.

Bacon was born in 1561, when Gilbert was 17, and Harvey born in 1578 is separated from Bacon by a similar number of years. All three were concerned with the investigation of natural phenomena and all are remembered by the treatises they published. Bacon for his "Novum Organum" (published in 1620) which attempted to complete a comprehensive survey of all existing knowledge, and Harvey, who published his monumental work, "De Motu Cordis," in 1628.

Without doubt Bacon and Gilbert would have been acquainted. One was Lord Chancellor and the other a leading member of the College of Physicians and later a member of the Royal Court. Indeed, Bacon in his "Novum Organum" comments on Gilbert's work and both praises and derides his theories. Both were concerned with the examination of natural phenomena by experiments and both pleaded for the application of the methods of controlled investigation, as the following quotations will show.



William Gilbert of Colchester.

Bacon says in the plan of "Novum Organum"—"I contrive that the office of the sense shall be only to judge of the experiment and that the experiment shall judge of the thing . . . those, however, who aspire not to guess and divine but to discover and know; who propose not to devise and mimic fabulous worlds of their own but to examine and dissect the nature of this very world itself, must go to facts themselves for everything."

Compare this with the following, written by Gilbert and published 20 years previously in the preface of "De Magnete." "In the discovery of secret things and in the investigation of hidden causes, stronger reasons are obtained from sure experiment and demonstrative arguments than from probable conjecture and the opinions of philosophical speculators . . . if any see fit not to agree with the opinions here expressed still let them note the great multitude of experiments and discoveries and we have demonstrated

them with such pains and sleepless nights and great money expense."

Harvey in his writings similarly pleads for frequent observation and reiterated experiment. Although the author of "De Motu Cordis" was only 27 when Gilbert died, it is interesting to speculate whether the two physicians were acquainted. Harvey married the daughter of Dr. Lancelot Browne, who was a close acquaintance of Gilbert. Sylvanus Thomson, historian to the Royal Society, tells us that Harvey knew a good deal about him and that according to Harvey, Gilbert expended no less than £5,000 on his researches. Thomson adds: "We may conclude that for both profession and family reasons Harvey would be inclined to pay attention to anything that the older man said."

Gilbert lived in an age of discovery and reasoning, and by his travels in Italy and acquaintances in London, he cannot have failed to be influenced by, and to play a part

in moulding, the new trends of thought occurring during the late 16th century. In the publication of his book, "De Magnete" at the very end of this century, he became one of the first men to apply the new principles of inductive reasoning and so to lay the foundations of the rational scientific method.

#### "De Magnete"

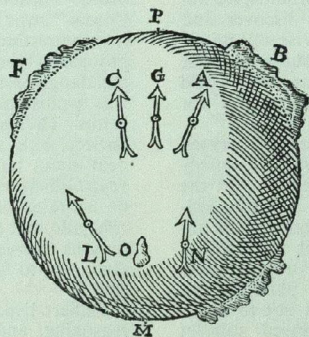
Gilbert's treatise "On the Loadstone and Magnetic Bodies and the great Magnet the Earth; a New Philosophy Demonstrated with Many Arguments and Experiments," was published in London in 1600. Sylvanus Thomson describes it as "one of the finest examples of inductive philosophy that has ever been presented to the world."

The preface is addressed "To the candid reader, studious of the Magnetick Philosophy; so . . . that the noble substance of that great magnet, our common mother (the earth) may be the better understood, we have proposed to begin with the common magnetick, stony and iron materials, and with the nearer parts of the earth which we can reach with our hands and perceive with our senses; then to proceed with demonstrable magnetick experiments; and so penetrate, for the first time, into the innermost parts of the earth."

He goes on to ask—"But why should I, in so vast an Ocean of Books by which the minds of studious men are troubled and

fatigued, through which very foolish predictions the world of unreasoning men are intoxicated, and puffed up, rave and create literary broils, and while professing to be philosophers, physicians, mathematicians and astrologers, neglect and despise men of learning; why should I, I say, add ought further to this so-perturbed republic of letters, and expose this noble philosophy . . . to be damned and torn to pieces by the maledictions of those who are either already sworn to the opinions of other men, or are foolish corruptors of good arts, learned idiots, grammatists, sophists, wranglers, and perverse little folk? But" (he adds with gentle flattery), "to you alone true philosophers, honest men, who seek knowledge not from books only but from things themselves, have I addressed these magnetical principles in this new sort of philosophizing."

Edward Wright, in an enthusiastic preface to the distinguished Doctor of Medicine, explains at some length the great value of Gilbert's discoveries to navigators and illustrates that this part of the treatise was considered by his contemporaries to be of the greatest importance. He writes: "If these books of yours on the Magnet had contained nothing else, excepting only this finding of latitude from magnetic declination by you now first brought to light, our shipmasters, Britain's, French, Belgian's and Dane's, trying to enter the British Channel or the Straits



One of Gilbert's Terellae.

of Gibraltar from the Atlantic Ocean in dark weather, would still not deservedly judge them to be valued at no small sum of gold." Dryden commented on this part of Gilbert's work when he wrote: "Gilbert shall live till loadstones cease to draw, or British fleets the boundless ocean dive."

"De Magnete" is divided into six books and contains such a mass of experimental evidence, conjecture and discussion, that it merits far greater consideration than is possible in this short article.

The first two books are concerned with the loadstone (a magnetic stone) and its properties. Gilbert points out that the efficiency or vigour of loadstone is increased when armed with an iron cap, for which he coins the term "armature."

There is also a digression on the subject of amber and the electric forces of iron and other substances which when rubbed show similar electric powers. Gilbert's claim to be the first electrician rests on this remarkable chapter, 14 pages in length.

It had been noted for over a century that the magnetic needle did not point to true north. It was also known that the amount of error varied when measured in different places over the earth's surface. Gilbert gives considerable data about the variations "under the Equinoctial line, in the great Aethiopic and American Sea beyond the Equator, in Nova Zembla and in the Pacific and Eastern oceans."

Earth masses were considered to cause this deviation and mountains of loadstone were often drawn in by early cartographers, such as Mercator. It is easy to understand why Gilbert also fell into this error, for measurements at sea from off the coast of Spain to Scandinavia all showed a variation towards the European continent.

Gilbert is at some pains to prove the accepted theory by constructing terellae (or magnetic globes) with irregular surfaces. His magnetic needles did indeed turn towards the masses projecting out of the globe; but his error was a simple one of proportions; the highest mountain is of small significance when compared with the earth's diameter and the earth scaled down to the size of the terella would appear almost smooth.

Gilbert constructed a simple device (an instrument familiar to this day in science-schoolrooms) to measure accurately declination (or dip) of the needle. He showed that using the terella the degree of dip is propor-

tional to the latitude. Therefore, arguing from small to large, seamen by measuring the dip of the needle will be able to calculate their latitude from tables. Navigators soon proved, however, that this was not so, and the problem of finding position at sea remained unsolved until the invention of the first accurate chronometer over a century later.

The last book is concerned not so much with the magnet, but with the Copernican theory of the Universe which Gilbert was the first to accept and proclaim in England. Gilbert goes further than Copernicus in showing that stars were not at a fixed distance but extended into space at varying distances. He writes: "How immeasurable then must be the space which stretches to immense the depth of that imaginary sphere. How far removed from the Earth must the most widely separated stars be and at a distance transcending all sight, all skill, and thought."

"De Magnete" was the result of almost 30 years' study and research, and is one of the earliest examples of the use of the then little recognised method of experiment and observation. The theories it put forward were not appreciably added to until the astronomer John Mitchell (1734 to 1797) published his treatise of artificial magnets over 150 years later.

#### Gilbert the Physician

Dr. Gilbert was 26 years of age when he went to live in the house in Knightrider Street, near to St. Paul's Cathedral and close to the College of Physicians. He practised for more than 30 years in London, becoming personal physician to Queen Elizabeth, and attending her during her last illness. He received a pension in 1601 as a mark of Royal favour, the only legacy Elizabeth left to anyone. He also held the offices of Censor and Treasurer in the College of Physicians and became its President in 1600. Gilbert left his collection of minerals, his books and instruments to the College, but these were all destroyed during the Great Fire of London.

Who his patients were in Knightrider Street we do not know; he has left no notebooks recording the illnesses and diseases he treated, nor do we know what drugs Gilbert favoured, although it is recorded that he took an active part in the preparation of the first London Pharmacopoea, published after his death by the College of Physicians.

Gilbert was a member of a number of committees appointed for the purpose of testing and classifying the enormous number of drugs in use. Singer remarks: "We may rest assured that the man who throughout his writings expressed the greatest scorn of quackery and empiricism would have cast the whole of his influence against the inclusion of many absurd remedies which even the learned College allowed to pass."

His interests in the Navy were not limited to his researches in navigation, for Gilbert was one of four physicians appointed a few months before the arrival of the Armada to enquire into the health of the Navy. In the Acts of the Privy Council dated March 22, 1588, is the entry: "Whereas a dysease and sickness began to increase in Her Majesty's navye for remedie of the dyseased and for staie of further contagion, their Lordships thought meet that some learned and skillfull phisicians should presently be sent thether. Dr. Gilbert, Dr. Browne and Dr. Wilkinson, as they were thought very fytt persons to be employed in the said Navye to have care of the noblemen, gentlemen and others in that service . . . should put themselves presently in a readiness to goe downe to the Navye, and to carry with them a conveyent quantitie of soche drogues as should be fyt for medicine and cure."

Gilbert the experimenter included two chapters on the medicinal properties of loadstone and iron in 'De Magnete' which gives us a valuable insight into Gilbert the physician. Chapter XIII is headed "Concerning other powers of loadstone and its medicinal properties," the opinions of several authorities (including Galen) are quoted. He mentions that, "The natives of East India tell us that loadstone taken in small doses preserves youth, on which account the ancient King Zeilam is said to have ordered the pans in which his victuals weer cooked to be made of loadstone."

Gilbert does not say whether or not the King's youth was preserved, but goes on to comment that "There are many varieties of loadstone produced by differences in the mingling of earths, metals and juices; hence they are altogether unlike in these virtues and effects . . . One loadstone is therefore able to purge the stomache, and another to check purging to cause by its fumes a serious shock to the mind, to produce a gnawing at the vitals or to bring on a grave relapse.

"Pure loadstone may indeed be not only harmless but even able to correct an over fluid and putrescent state of the bowels, and to bring them back to a better temperament."

Here Gilbert illustrates the peculiar intermingling of mediaeval philosopher and enlightened scholar so often seen in Renaissance writers who are just beginning to cast off the burden of the ancient dogmas which were still the accepted order in Europe.

Gilbert discusses the medicinal virtues of iron given in its natural form or after suitable preparation. After describing the preparation in detail, he goes on, "It is given chiefly in causes of laxity and over humidity of the liver, in enlargement of the spleen, after due evacuation, for which reason it restores young girls when pallid, sickly, and lacking colour to health and beauty," (a very astute observation).

He adds, however, that the use of electuary of slag iron is "an evil and deadly advice which if they do not sometime understand from our philosophy, at least everyday experience and the decline and death of their patients will convince them, even the sluggish and lazy."

The Galenic doctrines of the opposites ("contraria contraria") still held sway in the medical world at this time and there is much discussion as to whether iron be warm or cold, "which is variously contended by men." The opinions of Aristotle and Galen, Hippocrates and Fallopius, as well as the Arabians, are listed supporting one or other thermal property, only to be dismissed finally with the comment that "thus do the smatterers cross words together and puzzle enquiring minds by their vague conjectures and wrangles for trifles as to goat's wool when they philosophise . . . but these matters will appear more plainly by and by when we begin to discuss the causes of things, the clouds being dispersed that have so darkened all philosophy."

It is more than probable that these prophetic words were read by the young physician, William Harvey, who was to do so much to disperse the clouds of unreason by the publication of 'De Motu Cordis' 28 years later.

In conclusion it is of interest to ask why this outstanding figure of the first Elizabethan age is so little remembered today. Fuller, in his Epistle to Dr. Charlton wrote: "Mahomet's tombe at Mecca is said strangely

to hang up, attracted by some invisible loadstone; but the memory of this doctor will never fall to the ground, which his incomparable book 'De Magnete' will support to eternity."

Fuller's prediction, however, has not been borne out. Volta, Faraday, and Ampere all have a lasting place in the history of science, but Gilbert has no such eponymous recognition.

The reason probably lies in the fact that electrostatics, with which Gilbert was concerned, has remained of only academic significance while the other branch of the

science, concerned with current electricity and investigated 180 years later by Galvani, has had a much wider practical application. Nevertheless, the conception of electricity as a 'current' which 'flows' goes back to Gilbert's earlier researches.

But those of us who appreciate the full significance of William Gilbert's work in the development of the new methods of experimental investigation know that the memory of this remarkable physician is enshrined not only in Trinity Church, in the lovely town of Colchester, but also in the pages of his incomparable book 'De Magnete'.

---

## NEW YEAR'S HONOURS

### Barony

ADRIAN, Edgar Douglas.

### Knighthood

CLARK, Wilfred Edward Le Gros. Formerly Professor of Anatomy at St. Bartholomew's

### C.B. (Civil)

MACLAY, Hon. Walter Symington.

### O.B.E. (Civil)

KENNEDY, James Hutchinson.

ROBERTS, John Herbert Owen.

---

## EXAMINATION RESULTS

### SOCIETY OF APOTHECARIES

#### FINAL EXAMINATION

#### October 1954

Medicine	Dibb, F. R. F. (Diploma conferred)
Midwifery	Mellish-Oxley, K. G.

#### November, 1954

Medicine	Mellish-Oxley, K. G.
----------	----------------------

## THE POT-POURRI

Suddenly Christmas was here: the hurried rehearsals and work of the previous days were transformed into complete shows with the inevitable forgotten lines, misplaced props and accidents, and with the thing that makes up for these crises — the satisfaction of performing on the ward with a wonderful audience. Good advertising had whetted one's appetite for these shows which maintained a high standard. Less than twenty-six hours after the final snow in a ward the curtain rose at the Cripplegate on the first night of but a small selection of items from the shows.

"Harem Scarem" opened the bill. What an oriental fantasy this Kids' show was! One imagines that the children must have loved it. It had colour and gaiety, villainy and magic — and what lovely harem girls! Particularly pleasing were the costumes, the slick chorus work and a touching duet between hero and heroine.

Apprehension was fleeing and one sat back comfortably to watch a realistic Porters' chorus by the boys of "Combined Ops". They made way for some excerpts from the Midder and Gynac show, "From Beer to Maternity" (or "Ova to You" — if the censor will pass it!) Of these, the best was definitely a rather impressive conception of Binocular twins (was their mother really "Little Polly Perkins of Paddington Green"?).

One's recovery from the realms of higher thought which emanate from the East Wing was aided by three short songs — two from "Rake's Progress" (put on by the combined firms of Dr. Bourne, Mr. Hume and Dr. Spence) and one from "Combined Ops". A fascinating and captivating trio appeared in the "Three Little Maids in Blue". Soon they mellowed into three singularly unladylike persons who sang the "Ballad of the Night Sisters".

As if this excellent performance had not been enough, the Second-time Clerks excelled all and gave a packed house half an hour of undiluted joy. One cannot praise them enough for "Beaux Belles" which rang out with fine solos, clever and pleasant choruses, a music-hall turn whose chairman and participants would have done credit to many a

Victorian stage, and a concluding ballet which was nothing short of brilliant. It seems invidious to separate out any of this uniformly wonderful company, but one must pay tribute to their dancers, to the comic who lived so easily off the National Health, and to their producer who must have worked so hard in leading his team to a great triumph.

The opening of the second half had been reserved for a show from Hill End. On the second night the House provided a brief jollification — a motley disguised body who did well in spite of the absence of one of their star performers. On the first and last nights St. Albans provided a special treat. Seven theatre belts produced one of the slickest and neatest turns of the evening—"Belts Blues"—but not once did they let the audience think it was a tale of woe. It was so pleasant to see a show which one knew nothing about and which aimed its humour so successfully in another direction. Thank you, Hill End.

"Bottoms Up" could only come from the ground floor surgical firm, and they were joined by Mr. Hosford's dressers for the next few minutes. There was good singing and one must compliment those three popular parsons, two more sisters doing a "T...ic Wig-Walk" and, of course, "Fiddle diddle dee".

Finally the stage was filled with a fine body of folk in smart uniforms. It was pleasing to see the House improving each night in "Flying High" — on the first night they were beset by injuries and bad luck. The most popular items were the Geisha girls, the song about the appendix—"We'd never seen one as big as that before", and "A Little Catgut Suture."

The three comeres, Kingsley Lawrence, Pat Lawther and Ronnie King knew just what to do with their audiences—and did it! To the last of these, thanks for a reminder of the definition of a pot-pourri. Thanks also to Ray Daniel, the producer, to the producers of the separate shows for providing such a pleasant evening's entertainment, and to Bert for making up the hordes of performers.

THE YOUNG STAGER

## SPORT

## HOCKEY

**November 20 v. Old Cranleighans (away). Lost 2-1** (Dossitor). The fact that the only goal for Bart's was scored by the left back is sufficient comment on this game.

**December 4 v. Ealing Dean (home). Lost 1-3** (I. Tait). Lack of spirit against a team that covered robustly in defence were the main factors in our defeat in a game played largely in mid-field. The team that accepted the few chances presented to it won.

**December 11 v. Lloyds Bank (home). Drawn 0-0.** Never have so many scoring chances been missed in one match. Both sides were to blame. Despite this the game was played with an enthusiasm, which, though misdirected, was encouraging to see. For once the Hospital players were faster to the tackle than the opposition, and the opposing forwards had an unhappy day. Church at Left Inner played a forceful game but received no support.

**December 15 CUP MATCH. v. London Hospital. Lost 0-3.** Missed chances and faulty tactics cost us this match. Faced with a team whose strength lay at centre-forward, we should have attempted to play to our wings and keep the ball away from the centre

of the field. However, the full-backs, Nichols and Goodwin, played an excellent game and had all the scoring chances been accepted, we would have won.

This is not to detract from the performance of opponents who were always searching for openings to goal but rather to emphasise our own shortcomings.

**Team**—R. P. Doherty, J. B. Nichols, C. S. Goodwin, C. B. T. Grant (capt.), E. J. Batterham, P. G. T. Ford, J. R. Nicholson, H. V. Blake, D. R. Dunkerley, I. E. Tait, A. S. Tabor.

**November 17, Junior Cup Match v. Middlesex Hospital. Won 2-1** (Whalley 2).

It was refreshing to see a Bart's team play with such vigour. Two goals scored in the first half were sufficient to ensure victory even though our game deteriorated in the second-half. Speed in attack was our main asset and the presence of Church was the chief contribution to this. The whole team played well though there was an alarming tendency to slacken off too soon.

The Annual Dinner of the Club was held at the Magpie and Stump, on Thursday December 9. Sir James Paterson Ross Presided

## LETTERS TO THE EDITOR

Dear Sir,

The various forms of presentation of bibliographical references at the ends of clinical articles in the *Journal* are most confusing to readers. Entries are not only inconsistent, but often misleading and inaccurate.

If authors of papers intended for publication will submit references to me, they will be checked, and presented in a manner conformable with medical journalistic practice.

I would mention that the Library staff will readily undertake this service whether or not the manuscript is intended for this *Journal*, but the actual checking of references must normally be confined to periodicals available within the Hospital and College.

I am,

JOHN L. THORNTON,  
Librarian.

Dear Sir,

It is probable that the vast majority of students still have ambitions to avoid general practice like the plague. Having seen only the work of the G.P.s in London, they tend to believe that the days when a G.P. could practice medicine are over and that today he is merely the intermediary between the nearest hospital or chemist.

If you feel that the enclosed 'odessey of a G.P.' is up to *Bart's Journal* publication standard, it might help many students to make general practice their ambition from the start, rather than wasting years taking higher exams, only to find no consultant posts open to them.

The vast majority will end up in general practice anyway!

Yours sincerely,  
R. G. D. NEWILL.

## ST. BARTHOLOMEW'S HOSPITAL

HOUSE APPOINTMENTS — 1st JANUARY TO 30th JUNE, 1955

		Male	Female
<b>Dr. G. Bourne</b> Dr. Bodley Scott	Mrs. J. S. Murrell P. Y. N. Forget (until 31.3.55) D. A. Andrewes (from 1.4.55)	Smithfield	Mary
<b>Dr. E. R. Cullinan</b> Dr. K. O. Black	J. S. Murrell E. F. D. Gawne (until 31.3.55) R. C. Nainby-Luxmoore (from 1.4.55)	Rahere	Colston
<b>Dr. A. W. Spence</b> Dr. N. C. Oswald	Miss F. E. Garrad P. Bliss (until 31.3.55) G. H. Fairley (from 1.4.55)	Dalziel	Annie Zunz
<b>Dr. E. F. Scowen</b> Dr. W. E. Gibb	G. Scott-Brown J. W. Maltby (until 31.3.55) K. A. Clare (from 1.4.55)	Harvey	Luke
<b>Prof. R. V. Christie</b> Dr. G. W. Hayward	J. F. Pearce R. C. Taylor (until 31.3.55) D. P. Thomas (from 1.4.55)	Stanmore	Garrod
<b>Mr. J. B. Hume</b> Mr. A. H. Hunt	H. Poirier D. A. Andrewes (until 31.3.55) P. Y. N. Forget (from 1.4.55)	Fleet Street	Harmsworth
<b>Mr. R. S. Corbett</b> Mr. A. W. Badenoch	A. L. A. Reid K. A. Clare (until 31.3.55) J. W. Maltby (from 1.4.55)	Bowlby	H. Harrison
<b>Mr. J. P. Hosford</b> Mr. E. G. Tuckwell	J. F. Copplesstone R. C. Nainby-Luxmoore (until 31.3.55) E. F. D. Gawne (from 1.4.55)	Rees Mogg	Paget
<b>Prof. Sir J. P. Ross</b>	R. D. Clements D. P. Thomas (until 31.3.55) R. C. Taylor (from 1.4.55)	Percival Pott	Lawrence
<b>Mr. C. Naunton Morgan</b> Mr. D. F. E. Nash	L. N. Dowie G. H. Fairley (until 31.3.55) P. Bliss (from 1.4.55)	Waring	Abernethy
CASUALTY H.P.	H. R. Dingle		
CHILDREN'S DEPT. <b>Dr. C. F. Harris</b> Dr. A. W. Franklin	I. G. Tait Miss J. P. Brady	Kenton Lucas	
E.N.T. DEPT. <b>Mr. Capps.</b> Mr. Jory. Mr. Hogg. Mr. Cope.	W. S. Ogden A. H. Dunkley	Rees Mogg	Paget
SKIN & V.D. DEPT. <b>Dr. McKenna, Dr. Nicol</b>	Miss I. M. Smeed	Harvey	Luke
EYE DEPT. <b>Mr. Philips.</b> Mr. Stallard	J. E. Cairns	Bowlby	H. Harrison
GYNÆ. & OBST. DEPTS. <b>Mr. Beattie</b> Mr. Fraser, Mr. Howkins	J. H. Fairley M. B. McKerrow B. R. Wheeler	Interns Junior H/S.	(O) Martha (O) Elizabeth (O) Sandhurst (O) Butlin

## ANAESTHETISTS

DENTAL DEPT.  
ORTHOPAEDIC DEPT.  
(Accident Service)L. Langdon  
R. P. Holmes  
J. N. Swallow  
M. A. H. GrahamFleet Street  
Percival Pott  
Harmsworth  
Lawrence

## AT HILL END HOSPITAL

E.N.T. DEPARTMENT

ORTHOPAEDIC DEPT.

THORACIC DEPT.

NEURO-SURGICAL DEPT.  
ANAESTHETISTSW. S. Ogden  
J. H. Dunkley  
D. F. Craggs  
P. J. Burrows  
R. J. Blow  
M. E. Fielding  
R. W. R. Beasley  
J. H. Goode (until February)  
J. P. N. Hicks.

## Births.

JAMES, On December 9, to Audrey, wife of Dr. D. C. James, a son (Matthew David).  
 JOULE, On December 8, to Mary, wife of Dr. J. W. Joule, a daughter (Janet Mary).  
 LONSDALE, On December 21, to Adele, wife of Dr. Derrick Lonsdale, a brother for David.  
 MAIDLOW, On November 28, to Helena, wife of Dr. W. M. Maidlow, a son.  
 MELOTTE, On December 12, to Kathleen and Dr. G. Melotte, a sister to Anne.  
 PRAGNELL, On December 16, to Mary, wife of Dr. Cyril Pragnell, a sister for Peter and Mary.  
 CLIFFORD, On December 12, to Jean, wife of Major W. E. Clifford, a brother for Angus and Duncan.

## Changes of Address.

DR. R. G. D. NEWILL  
to Sarratt Hall Cottage,  
Sarratt,  
Herts.  
 DR. F. SAVAGE  
to 208, Lake Road East,  
Cardiff.  
 DR. F. AVERY JONES  
to 149, Harley Street,  
London, W.1.

## Degrees, Etc.

UNIVERSITY OF LONDON.  
HARRIS, Dr. C. F., has been re-elected Chairman of the Academic Council.  
 UNIVERSITY OF BIRMINGHAM.  
GAISFORD, Prof. W. P., has been appointed Leonard Parsons Lecturer for 1954/5.  
 STRONG, Mr. E. C. N., has been appointed University Clinical Lecturer in Ear, Nose and Throat.  
 BRITISH ASSOCIATION OF OTOLARYNGOLOGISTS.  
HOGG, Mr. J. C., has been elected Hon. Treasurer of the Association for 1954/5.  
 ROYAL COLLEGE OF SURGEONS OF ENGLAND.  
F.R.C.S.  
 AKEHURST, A. C.  
 BRAIMBRIDGE, M. V.  
 CALDERWOOD, R. W. L.  
 GREEN, N. A.  
 GRIFFITHS, J. D.  
 JUDY, H. B.  
 SMITH, I. MCN.  
 TIMMIS, Peter (in Otolaryngology).

## Engagement.

BRAIMBRIDGE—CORMIE. The engagement is announced between Mark Vincy Braimbridge and Barbara Alison Cormie.

## BOOK REVIEWS

**Textbook of Operative Gynaecology**, by Wilfred Shaw, M.A., M.D., F.R.C.S., F.R.C.O.G. Published by E. & S. Livingstone Ltd., Edinburgh and London. Price £5, pp. 436 with 382 illustrations.

This book, which has been published posthumously, will take its place naturally and without challenge as the standard British textbook on operative gynaecology for many years to come.

Its immediate appeal is to the practising gynaecological surgeon and senior graduate working for higher qualifications. Any senior student will, however, be well repaid by spending time on reading the text and perusing the illustrations relating to the commoner gynaecological procedures. This is due to the fact that Wilfred Shaw has imparted his gift of pointed and precise teaching into the text, and has restricted unnecessary discursive matter. Despite this the book is fully comprehensive and fully describes every day gynaecological procedures. Indications, contra-indications, alternative procedures, likely difficulties, and results and complications are discussed in the light of Wilfred Shaw's extensive experience. This experience was backed by an acutely observant and enquiring mind, and a profound knowledge of pelvic anatomy and pathology.

The pithy chapter on anatomy is stimulating in its originality. In the rest of the book anatomical features are presented in natural relation to the procedure with emphasis on important points. The illustrations, mainly from prototypes produced by Wilfred Shaw with the aid of many photographs, are, anatomically, highly accurate, and indeed he advises that they should be studied as critically as a problem in analytical geometry. These illustrations are beautifully executed and it is an absorbing pleasure to follow consecutive steps of an operation, the salient features being noted in concise legends. Many of the plates are from Austrian sources and reflect the care with which the illustrations have been selected. The size of the page (8½ in. by 11 in.) allows full appreciation of their excellence, and the reproduction is first class. Indeed the whole production is a work of great quality.

Wilfred Shaw's personality is at once apparent, and his special interests are seen in descriptions of vaginal operations. In particular Schauta's operation, the interposition operation, Spalding-Richardson operation, and Martius graft operation are outstanding as unique descriptions in British literature. Work in regard to the cure of stress incontinence is recorded with critical and lucid appreciation of its difficulties and complications. As one reads this book it becomes apparent that Wilfred Shaw has got to the essential points in an unerring way and presents his readers with the wisdom and experience he acquired in a fascinatingly clear and readable form. To complete the work, chapters on non-gynaecological conditions found at operation, treatment of operative damage to the bladder and ureters, and Caesarean section are included.

This book will be read and appreciated by gynaecological surgeons the world over and there is not one amongst them who will not gain by so doing. If this was Wilfred Shaw's only work it would make his name renowned. It is, however, his crowning achievement, created under circumstances of tremendous personal courage, and emphasizes the loss to Bart's of one of their greatest teachers and surgeons.

S. F. HANS.

**Haematological Technique for Medical Laboratory Technicians and Medical Students**, by E. M. Darmady, M.A., M.D., F.R.C.P., and S. G. T. Davenport, F.I.M.L.T. Published by J. & A. Churchill Ltd., London. Price 18s., pp. 197, 4 coloured plates and 23 text figures.

It is essential that books on laboratory technique should be up to date and therefore it is essential that editions should be small and that the books should be reasonably cheap. There is no need for them to be printed on art paper or to be firmly bound. Several publishers of reprints and novels have led the way by using shiny thin card covers.

The present reviewer has been stimulated to make these remarks by examining this beautifully produced book, although he must admit that after reading it twice, he is not clear for whom it is intended. There are excellent pictures of blood cells such as can be found in many other books, but the recognition of which can hardly be regarded as the work of the laboratory technician.

It is surprising that a book on haematological technique does not contain details and methods of blood grouping and cross-matching, which form so much of the work of every haematological department, whereas it contains a most admirable brief review of modern theories of blood coagulation, which may interest the medical laboratory technician, but would not really assist him in his work.

There are a few important errors in the book and if anyone followed the procedure given for the panoptin stain (p.98) one would find that they had no film left when they came to examine the slide. There are also a number of mistakes in the spelling of proper names.

The book confirms the reviewer's opinion that a small volume confined to technical methods would be very useful, whereas a book such as the present one, which attempts to give a very sketchy review of haematology mixed with useful technical methods, probably does not fully serve the purpose of any group of medical workers.

A. PINEY

**"An outline of Developmental Physiology"** by Chr. P. Raven, translated by L. de Ruiter. Pergamon Press Ltd., London, 1954, 216 pp., 64 illustrations. Price 17s. 6d.

Surprisingly enough this is a book about experimental embryology. Before the war a great German school of experimental embryology grew up at Freiburg and in 1936 Hans Spemann, its founder and leader, published a book summarising and discussing the more important work. Since the war the leadership in this field has passed, to a large extent, to Holland. It is fitting that a well-known Dutch embryologist, Chr. P. Raven, should have written an account which, whilst including the earlier work, brings the story up to date.

Unlike Spemann, Raven is not exclusively concerned with embryonic induction, nor does he confine himself to a consideration of amphibians. Fertilisation, chemo-differentiation, the rôle of the genes, and later stages of development are only some of the aspects discussed. The general application of any theory, or its absence, can often be assessed by the reader, since the author has drawn his examples from many corners of the animal kingdom.

Raven includes in his book a careful and detailed consideration of the processes of regeneration, an aspect of growth too frequently ignored by the embryologist. From the medical student's point of view it is perhaps unfortunate that little attention has been given to nerve regeneration and wound healing. For those who are interested in the physiology of such processes, however, this book may provide the stimulus for new and fruitful lines of thought; for the experimental embryologist it supplies a long needed discussion of modern experiments, facts and theories.

R. BELLAIRS.

Other publishers' announcements overleaf.



## A Warbling of Words

"None of your medical jargon", patients sometimes say haughtily; "just tell me what's wrong".

Yet if I reply: "You've got a pain in your back", or "Medically speaking, I should call that a spot on the face", they are not really satisfied. They much prefer to be told they have lumbago, or a macule. Everybody, including the doctor, likes to give a nice dignified name to a thing: it seems so businesslike.

According to the Oxford English Dictionary, drowsing through the centuries, this contemptuous use of the word "jargon" for "the language of scholars, the terminology of a science or art", is quite recent, only dating from about 1651. Before that jargon meant, for the Old Frenchman, a warbling or twittering of birds, becoming nonsense or . . . . .

*Irritating of us to leave this delightful essay unfinished? Blame space—and send us a p.c. if you'd like to finish reading it. This is one of the now-become-famous "Provings of Podalirius", written by an erudite doctor with a deliciously humorous pen, and collected in a booklet. Shall we send you a copy? Our address is below.*

## VITAMINS LIMITED

DEPT. G.4)

Upper Mall, London, W.6

Makers of

BEMAX VITAVEL SYRUP VITASPRIN

BECOVITE BEFORTISS PREGNAVITE COMPLEVITE

FERTILOL CREAM CHOLINVEL ETC.

## ROUND THE FOUNTAIN

Fifth Edition. Humorous extracts from *St. B. H. Journals*, 1893-1949, 5s. from the Library or Nurses' Post Office, 5s. 9d. post free from the Manager of the *Journal*.

THE WORLD'S GREATEST  
BOOKSHOP

**FOYLES**  
\* \* \* FOR BOOKS \* \*

Bookbuyers throughout the world turn to this bookshop as a knowledgeable source of information on all their book requirements. And from generation to generation they praise and recommend Foyles — and buy their books here.

*Foyles have departments for Gramophone Records, Stationery, Music, Handicraft Tools and Materials, Magazine Subscriptions, Lending Library, Foreign Stamps.*

119-125, CHARING CROSS ROAD,  
LONDON, W.C.2.

Gerrard 5660 (16 lines) \* Open 9—6 (inc. Sats.)  
Two minutes from Tottenham Court Road Station

## TO MEDICAL STUDENTS

Are you aware of the unique facilities offered by

## LEWIS'S LENDING LIBRARY

For a nominal subscription you can borrow any British or American work available in this country. Books may be kept as long as required or exchanged as frequently as desired.

ALL BOOKS ARE OF THE LATEST EDITIONS

THERE ARE SPECIALLY REDUCED TERMS FOR MEDICAL STUDENTS

**LEWIS'S BOOKSELLING DEPARTMENT** has a large stock of students' textbooks and new editions in all branches of Medicine, Surgery and General Science of all Publishers. A select stock of Foreign Books available. Those not in stock obtained to order. Catalogues on request.

The **SECOND-HAND DEPARTMENT** has a stock of recent editions. Old and rare books sought for and reported. Large and small collections bought.

In the **STATIONERY DEPARTMENT** there are Case-taking Systems (Cards or Sheets), Temperature and other Charts. Note-books, loose-leaf or bound, writing-pads, fountain pens, pencils, etc., and other requirements for Students.

London: H. K. LEWIS & Co. Ltd., 136 Gower Street, London, W.C.1

Telephone: EUSton 4282 (7 lines)

Telegrams: Publicavit, Westcent, London

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LIX

MARCH 1955

No. 3

## THE OBJECTS OF THE JOURNAL

It is now over sixty years since the "*St. Bartholomew's Hospital Journal*" was first published in October, 1893. At the beginning of the first issue, the objects of the *Journal* are recorded, and it is interesting to read them again, and to consider one or two, and note how little they have altered during a period which has witnessed great changes not only in medicine, but in the outside world.

The first object of the *Journal* is "*To put on permanent record such clinical and other work as is done in this Hospital, which finds its way into no paper, but which is in itself invaluable to the student and practitioner. It will thus enable them to keep in touch with recent work and with the progress of the science and art of Medicine, Surgery, and Midwifery in the Hospital and School.*"

This object was written at a time when medical research was beginning to embark upon extensive and inspiring discoveries. Antiseptic surgery and the advancing study of bacteriology seemed to offer a rapid hope of cure to all disease. This is reflected in the early *Journals*, where glimpses of the future are given in "Evolution of Medicine and Medical Teaching" and "On Medical Practice and Original Research." One is frequently reminded, however, that there was still much work to be done. "Intravenous Saline Injection in Cholera" was written by the Resident Medical Officer of the Grimsby Cholera Hospital. Many similar titles recall diseases, once common, which are a rarity today. There are numerous articles on the work done in the Hospital to further the expanding knowledge. Today, research is still proceeding apace, and reports still appear regularly in the *Journal*. However, one cannot help feeling, in view of the great amount of research being done all over the Hospital, that a more thorough and up to date appraisal of this work would be welcome to all who have the interests of the Hospital at heart. A list of "Recent Papers

by Bart's Men" appears frequently in the *Journal* — surely a few pages on "Recent Research by Bart's Men" would not come amiss!

The second object of the *Journal* is "*To promote and extend the feeling of esprit de corps among students, past and present, in their work, amusements, and matters of interest to them in daily life; to note their doings in Athletics, in Examinations, and by publishing Reports of Meetings, Social Gatherings, etc., to give non-active members some idea of the means by which the name of this great Royal Hospital is being maintained, and so, by example, to rouse them into activity.*"

Here, again, the *Journal* has changed little over the years. There are frequent reports of happenings in the Athletic world, and Examination Results and House Appointments are regularly included.

There seems to have been a definite drift from reporting Social Gatherings however. The early *Journals* contained long and entertaining accounts of the "St. Bartholomew's Hospital Smoking Concert Club." The Steward's Banquet and various other festive occasions were amply described.

Nowadays it is only rarely that a report of their meetings is seen. One is drawn to the sad conclusion that the Clubs of more leisurely days have at last disappeared in the bustle of modern times. It is rather a pity that even in this Hospital, where one would expect to find some reverence for ancient institutions, most Societies which are not purely functional have ceased to exist.

One can see that the *Journal* has not altered so greatly, and its aims have diverged but little since the original objects were stated. It is reassuring to reflect on this stability, and anyone with a few minutes to spare in the Library, will be amply rewarded by perusing a few early editions of the *Journal*.

**11th Decennial Club**

The 20th Annual Dinner of the 11th Decennial Club will be held at Simpson's-in-the-Strand on Friday, April 22, 1955, at 7 for 7.30 p.m. G. F. Abercrombie, V.R.D., M.D., B.Ch., will be in the Chair. Will anyone who fails to receive a card please communicate with F. C. W. Capps of 16, Park Square East, Regent's Park, N.W.1.

**Gold Medallists**

Television viewers on January 19 saw an eve-of-departure appearance in Sports-view by Dr. Arthur Wint, M.B.E. He is returning home to Jamaica, and one wonders how long it will be before a need arises again for the size 8½ gloves and those green cuffs, which filled the gap between the sleeves of the largest gown the hospital could supply.

This column recently deprecated the disappearance of Etherington-Smith Ward, founded as a Ward for Housemen, in memory of "Ethel" Smith, another Olympic winner of an earlier generation. We are

happy to see the memorial plaque erected again in a side room of the new Lucas Ward, and venture to wonder if this ward will be used again for the purpose for which the fund was subscribed.

**How are the Mighty**

The District Case Book is sufficiently old to enable Midder Clerks to read of the first faltering footsteps of those who now fearlessly tread the higher slopes of the slippery science of obstetrics. Now entering its fourth year is the Anthology of "Funnies" and Faux Pas perpetrated by all and sundry in the Department of Midwifery. The value of this work may one day be out of all proportion to its literary merit. The first entry bears repeating:—

"Patient (in depths of E.C.I.) to midwife: "Take yer 'at off, dearie, I won't split on yer, nor will doctor 'ere."

Later that day in Theatre: D— F— to "doctor": "Well, this is the biggest third degree tear we've had in here for many a long day."

**LETTERS TO THE EDITOR**

Sir,

The General Medical Council frowns upon qualified practitioners who advise on treatment from a distance, patients whom they have never seen. Yet on occasions even this medical etiquette has to be thrown overboard. During my summer holiday on a small Norwegian cargo boat, I was asked one night to go to the Radio Officer (a woman) to give advice to the Captain of another cargo boat belonging to a British line.

When I arrived in the Radio Cabin, I was handed a message to say that the first officer on the other boat was very ill. It appeared that he had been treated previously for a gastric ulcer, and had that day been seized with sudden pain, was very tender in the upper abdomen, and vomiting everything.

At this point it would have been nice to report that the two ships drew together and that I was transferred by 'Breeches Buoy' to the other ship, and did an emergency operation with a carving knife, as they had no surgical instruments.

In fact nothing so dramatic occurred. I told the captain it might be a perforated gastric ulcer, and advised him to give the patient nothing by mouth, and to land him at the nearest port, about eight hours distant. This was done and subsequent enquiries disclosed that it was a relapse of the gastric ulcer, and after prolonged medical treatment he was once more convalescent.

Yours faithfully,  
MALCOLM DONALDSON.

Sir,

Apart from the interruptions of War, the Cambridge Graduates' Medical Club of St. Bartholomew's Hospital has held a dinner annually since 1876. This has always been a purely masculine affair, and, by kindly consent of the ladies, it remains so. The next Dinner will be held on Friday, April 1, 1955, at the Royal College of Surgeons. Mr. Kenneth Walker, President for 1955, will be in the chair. The Georgian loving cup,

generously given by Lord Horder, will be used for the first time. The Secretaries endeavour to notify all Cambridge Graduates in this country who are Bart's men, and would be grateful to be informed of any who may fail to hear.

Yours faithfully,  
H. JACKSON BURROWS,  
R. A. SHOOTER,  
*Honorary Secretaries.*

Dear Sir,

It is a pleasing account that Mr. Smart has given in his article (Dec., 1954) on the flourishing United Hospitals Sailing Club. May I have leave just to expand his first paragraph. The Club has been so successful that its founder deserves to be named. It was W. A. Lister of the London who sent a circular letter to hospital Students' Unions asking anyone interested in forming a Hospitals Sailing Club to get in touch with him. As a result half-a-dozen of us met at his home, formed ourselves into a committee and drew up rules. For half a season or so the Club rather hung fire as a log-reading Club for cruising men. But a dwindling audience took fire at the dinghy scheme with its competition and its training for all, organised most ably by its first bosun, Roche, a New Zealander from Guys. Hence to the scenes recounted in Mr. Smart's article.

And may a 30 year long life-member take this opportunity of expressing thanks for the way we are treated, invited specifically and repeatedly to join in Club functions and given a circular news-letter to help absentees keep abreast of developments?

Yours truly,  
RANYARD WEST.

Dear Sir,

Last April the *Journal* carried an appeal for funds to enable the Boat Club to buy new boats. As the result of the generosity of a few private individuals and various bodies connected with the Hospital, and of the Club's own efforts, enough money has been raised to buy a new Shell VIII. I hope, Sir, your readers will not think us ungracious in putting forward our other great need—a new clinker-built IV.

The United Hospitals Regatta in November is now for small boats only; there are

to be Bumping Races in May for the VIII's. It has proved impossible to borrow clinker IV's to train adequately for the November Regatta now that this type of racing is taken so seriously. This makes our long standing need of possessing our own boat more urgent than ever, if we are to compete on equal terms. In addition to inter-Hospital rowing, junior oarsmen are taking an increasing part in coxed IV racing in Summer Regattas.

We shall be most grateful for any help in our present task of raising £215 to buy a clinker IV.

Yours sincerely,  
D. A. CHAMBERLAIN, *Captain.*  
R. L. ROTHWELL JACKSON, *Treasurer.*

Dear Sir,

May I congratulate Mr. Dawrant on his most interesting account of Dr. William Gilbert in the February issue. May I also add a footnote to it concerning Dr. Wilkinson, who is mentioned as having been with Gilbert on the commission appointed to enquire into the health of the Navy in 1588, the year of the Armada.

Dr. Ralph Wilkinson was a classical Scholar of Trinity College, Cambridge, and served his college as Fellow and Junior Bursar. He also took his M.D. degree in 1574. Instead of practising medicine, however, he accepted the post offered to him in the following year by the Grocers' Company as headmaster of Oundle School, which they had just taken over under the will of Sir William Laxton. Under Wilkinson the school began to lay the foundations of future prosperity as a public school. The present chair used by the headmaster dates from his time. In 1583 he resigned, for no known reason, and entered upon the practice of medicine in London, where he soon became eminent, and a leading member of the Royal College of Physicians. In 1603 he became physician to Bart's, but he resigned this post five years later owing to failing health. He put the hospital for ever in his debt by nominating William Harvey as his successor. No doubt he recognised even then that Harvey had a great and glorious future. Some of Wilkinson's notebooks are in the British Museum.

Yours sincerely,  
W. RADCLIFFE.



Sir,

I read with much interest your editorial on the goldfish in the Fountain. Allow me to congratulate you upon the wit and accuracy of your account. The incendiaries were tiresome but the gentian violet was not as upsetting as you might suppose because I found it was good (or more properly, bad) for the nematodes which inhabit my alimentary canal.

It might interest your readers to know of a few further incidents with which I have had to cope during my long life. There was, for instance, the occasion when one of the house physicians, although clad in a dinner-jacket, took a swim in the Fountain. Incidentally, his signature appears close to the smaller of the two cockroaches in the photograph illustrating the article on the Catering Company. There was also a scheme to give me the benefit of the company of a very small whale but rather to my relief the plan did not mature. Perhaps the most tiresome hazard to which I am from time to time exposed is of the kind so elegantly recorded by a one



*Fleeing from the Goldfish*

time contributor of yours, the poet Hogarth. Two couplets spring to mind, the occasion described being a Residents' Dinner.

Some, returning early from the fray,  
Joyfully vomit in the passage way:  
Others with shrieks torment th' indignant  
air  
and micturate upon the Fountain in the  
Square.

Conspicuously absent from your account of my cloistered life was any reference to the occasions upon which students have been precipitated into the Fountain. No doubt your readers would very much like to know the names, occasions and, in rare instances, the number of times upon which students have been thrown in but a high sense of duty has always been a matter of pride to my family and therefore upon this topic my gills must remain scaled.

I beg to remain,

Yours respectfully,  
A. GOLDFISH.

## AN ADVENTUROUS BOOK

by J. B. HUME

An edition of Sir Lauder Brunton's lectures published from New York in 1899 was recently given to me by an American gentleman, Mr. Charles C. Perrin, who discovered it in romantic circumstances, which he describes vividly in this letter to me:—

"We have a summer home in the high mountains of Colorado, about 100 miles west of Denver, and were there during June, July and August this year. Ours was a boom mining town in earlier days, with a population of 10,000. Now it is a ghost town with only about 200 of us living there.

"Some of the largest producing gold and silver mines were in our district. Now they are closed and deserted, the buildings fallen apart, and it is a sad reminder of the past to wander among them.

"I ride horseback four or five hours each day out there, and often prowl about the old mines. The mountains are now being thoroughly combed by all sorts of people searching for uranium. This year I took a good Geiger counter along and spent many hours trying it out around old mines and other places. Incidentally I struck no ore.

"However, in a ramshackle old log cabin near Farncomb Hill, which produced more gold than any other mine in the state, I found a book which I thought would be of interest to you, so I am sending it along.

"This mine was closed in 1902, so the book has been there 52 years since there have been inhabitants about the place. It is not in good condition after its long years in the mountain weather, where 40° below zero in winter is quite usual, and terrific rain and hail storms in the summer, but it is readable. The mine where it was is at 11,500 feet altitude, and the snows come there in

early September and continue to the end of May.

"The book is entitled 'Lectures on the Action of Medicines', being the course of Lectures on Pharmacology and Therapeutics, delivered at St. Bartholomew's Hospital during the Summer sessions of 1896, by T. Lauder Brunton, M.D., D.Sc. (Edin.), LL.D. (Hon.) (Aberd.), F.R.S.

"As I picked it up and saw what it was, I dreamt of who and what the lad was who left it there, and what became of him. Was he a young medical student who came out from England to the mines; a practitioner who followed his profession in that rough country; a lad who hoped to become a doctor some day; or what? There was lots of British capital invested in mining in Colorado, and the famous old North London and South London mines were only a few miles away.

"Anyway, I thought the book and its story might be of interest to you and give you some dreams. I recall 'God gave men dreams by night so that they might learn to dream by day.'

When I opened the book a shower of dust and quartz fell on the floor. I wondered whether they contained any gold. But the yellow stains were unfortunately only iron pyrites.

Bart's men have indeed gone to the uttermost parts of the earth, and one of them must have taken Lauder Brunton's book with him. Incidentally, Brunton was Physician to the Hospital from 1895 to 1904, was knighted in 1900, and created a baronet in 1908. He died in 1916.

The book is now in the Library.

It is with much regret that the author of the article entitled, "A case of Intra-thoracic Goitre," published on p.282 of the October (1954) number of this *Journal*, wishes to announce that, through an error, acknowledgement was not made to Professor Sir James Paterson Ross, under whose care the patient was admitted, and who did so much to help and encourage the production of the article.—M. J. Turner.

## RADIOTHERAPY AS A CAREER IN MEDICINE

by I. G. WILLIAMS

*"In the treatment of cancer, . . . here we have the scalpel and there the rays, soon perhaps a biological or a chemical agent. It is the destiny of rites to come and go. Let us detach ourselves from rites before we fall, and continue to serve our God."*

*Claude Regand's report on Radiotherapy before the Académie de Médecine de Paris, 1932.*

Practically the whole of the electromagnetic spectrum is used in medicine in the treatment of diseases. Physiotherapy is concerned with the long wavelengths from the alternating currents to the ultraviolet zone, whilst radiotherapy may be defined as the application and use of the shorter wavelengths, Grenz rays, X-rays and gamma rays. Both together comprise Radiation Therapy. The mechanism of action changes in the visible spectrum region from that of heat, to a biophysical action. The main property of the shorter wavelengths is that of ionisation, and these (together with alpha rays, beta rays and electrons) are called ionising radiations. The clinical effect produced on cells becomes more obvious as the wavelengths become shorter. The biological effect is always detrimental to a cell and if the dose is large enough any living cell can be destroyed. A cell in division is more sensitive than a resting cell and on this fact rests the whole science of radiotherapy, whereby a tissue or organ or gland may be modified in its action, or a new growth destroyed without destroying the nearby normal tissues. Radiosensitivity may be defined as the varying susceptibility of cells to ionising radiations. Radiotherapy can thus be used to adjust or arrest a neoplasm. It can modify inflammatory conditions, it can alter the secretions of glands and in some way it can affect nervous tissue and so relieve the symptom of pain.

The study of the action of radiations on cells has led to a great increase in our knowledge of neoplastic disease. The varying response of tumours to these radiations was responsible for a tremendous amount of work in pathology, whereas previously a growth was labelled cancer, and its surgical treatment either possible (operable) or impossible (inoperable) a finer grading of tumours was recognised. A greater significance was attached to differentiation and to biological behaviour. The study of radiosensitivity of tumours, which became manifest in the

response of particular tumours to radiotherapy, became clear when statistical analyses of the results of treatment were instituted. Although individual surgeons had commenced this work and a pattern had been set by Sir Henry Butlin, a surgeon of our own hospital, a commission established by Royal Charter under Letters Patent of July 1929 and known as the Radium Commission was the first to carry out this type of work on a large scale. The high cost of radium controlled by the National Radium Trust was responsible for the curiosity to know what it could achieve. Standards for the collection of data on malignant disease, and the results of treatment as judged by survival rates, were distributed to the various Radium Centres. Out of this have grown the Follow-up and Statistical Departments, now essential departments of all large hospitals.

A radiotherapist must have a wide knowledge of medicine and surgery, as tumours occur in all tissues and all organs. In most, today, radiotherapy may play a part in an attempt to either control or eradicate the disease. It does not mean that he must be a specialist in all the specialties, but his general training must be such that the language of each of the specialties must be clear and understandable to him. The symptoms and signs of malignant disease in any organ may primarily be the same as those of less serious conditions so that a sound basic knowledge is essential. He may not be able to interpret his clinical findings to the fine degree of a specialist in the disease of some part of the body, but he must be able to use a laryngeal mirror, the stethoscope and other instruments for examination. He must know what the finger can feel in the vagina or rectum, or the ophthalmoscope reveal in the optic fundus. This knowledge is essential so that he can give of his best to his patient. It is necessary so that he can talk intelligently to his colleagues in the various departments of the hospital, so that he can meet them on sure

ground. It does not mean that he can compete with each specialist in each branch of medicine, indeed to claim authoritative knowledge in all branches of cancer would be obviously presumptuous. Its greatest value is the knowledge it can give him of when to ask for help and assistance. In the fullest meaning of the words it must mean that he must be a general physician and surgeon, and his basic training must be adequate. Two years after graduation should be the minimum for this general education in medicine, surgery and some of the specialties. During this period he may with advantage study for a higher degree or diploma in medicine or surgery. He cannot do both, and if he is inclined to medicine he could acquire more specialised knowledge of neurology, if towards surgery, of E.N.T. or gynaecology. Although his future activities may cover medicine and surgery, there is sufficient scope in the larger departments to develop a bias towards more specialised knowledge on the medical or surgical sides. A radiotherapist is primarily a doctor, not a physicist, or mathematician. His particular science may be expressed in figures or symbols, but that is only incidental to his greater function of dealing with sick human beings, and the most important stage of his training is this immediate post graduation training, where as house surgeon or house physician, he may acquire knowledge from his responsibilities and dealing with patients, and learning and wisdom which contact with his chiefs will give him. If time can be allowed this training could extend to the registrar stage and end with the acquiring of the M.D., M.R.C.P., or F.R.C.S.

Having obtained this experience and training the next step is to obtain the Diploma in Medical Radiotherapy (D.M.R.T. R.C.P. Lond. R.C.S. Eng.). The examination is divided into two parts: Part I, Physics as applied to Radiotherapy, and Part II (a) the biological effects of radiations, and (b) Clinical Radiotherapy, Theoretical and Practical, and Pathology in relation to Radiotherapy. The course of study for the Diploma extends over two years. During the first six months, candidates are required to attend at a recognised medical school or institution part-time courses of instruction in physics as applied to radiotherapy and in the biological effects of radiation, concurrently with attendance during the remainder of that time in the radiotherapy department of a recognised hos-

pital. During the subsequent eighteen months, candidates are required to devote the whole of their time to work in the radiotherapy department of a recognised hospital, including attendance upon recognised courses of instruction in the theory and practice of radiotherapy, and pathology in relation to radiotherapy. The physics course proceeds from the 1st M.B. level (a knowledge of general physics equivalent to the 1st M.B. is assumed) to the more specialised physics of Radiations. Proceeding from the structure of the atom, cathode rays, X-rays, generators, radioactivity, etc., are thoroughly covered by the syllabus. The physical basis of X-ray therapy, of radium and isotope therapy, must be well learned.

For those with an aptitude for physics, this part of the training will present no difficulties. What of the average student? It can be truly stated that an average knowledge (and intelligence) is sufficient. All departments are now staffed by hospital physicists, and the physics can be safely entrusted to them. It is impossible for one individual to excel as a clinician, as a doctor, as well as a mathematician and physicist: but a worker must know the tools he handles, he must understand the basic principles. Indeed the unravelling which has occurred in nuclear physics has a fascination of its own, but he need not aspire to the level of an Einstein. The fact that a certain elementary knowledge of physics is necessary should not deter anyone. Most of the knowledge gained will, like "Snow upon the desert's dusty face, light its little hour or two" and little will remain.

Having gained the diploma, the next stage is to gain experience and responsibility through the junior-senior posts in the Radiotherapy departments, and this could culminate with the acquisition of the Fellowship of the Faculty of Radiologists. This is taken by examination in radiotherapy together with medicine, surgery and pathology. Exemption is granted in medicine and for surgery to those who hold a higher degree or diploma in these subjects. This examination is recognised as the standard necessary for a consultant appointment. Some universities grant a mastership of radiology whilst in London University the M.D. may be taken with radiology as the principal subject.

And what of the work itself? A common remark made is "Your work must be very depressing." The answer to this is, of course, it all depends what you mean by depressing.

We enter the medical profession for various reasons, but undoubtedly beneath everything is a deep desire to help our fellow human beings. This ideal may not be definable, it may be overruled by other ideas and thoughts, the challenge of disease, the problems to be worked out, the challenge to thought, to reason and to philosophy which lies in medicine. But beneath all lies some idea of service. Cancer does not leave a static patient, untreated it has a 100 per cent. mortality. By our art we can relieve them, or should we fail the result is the death of the patient. There is no half-way, it is all or nothing. When we succeed we know that we have achieved something that no one else could do, and that we have cheated death. If we fail we have the harrowing experience of terminal care, of watching the physical suffering of the patient, and the mental anguish of the relatives. "The insuperable difficulties encountered in combating the disease, and the infrequency of our successes, are sufficient to endow with adequate humility all those who occupy themselves with the management of cancer," but is not depressing. We fail because we do not know enough. At our meetings we proudly present our cure rates, our survival statistics. With carcinoma of the breast stage I, 80 per cent. survive five years after treatment. That is an achievement, for it is better than it was thirty years ago. But still 20 per cent. die. One in every five with a carcinoma of the breast still clinically confined to the breast at the time of treatment dies of the disease in spite of all that modern surgery, radiotherapy or endocrinology can do. It may be that we in our lifetime may not learn the answer to many of the questions now perplexing us. It is true that like surgery, radiotherapy is a local form of treatment. Surgery attempts to remove what it cannot control. But it may contribute more to the cancer problem than improved five-year survival rates. Why should a few ionising radiations shot into the spleen restore a leukaemic blood condition to

normal and maintain this normality for a long period of time? Irradiated metastatic cancer cells in lymph nodes may lie dormant for months, the pathologist will call them viable, but clinically they do not grow. Why? What a field for investigation lies in our "chronic" wards!

The satisfaction of the successful result of one's efforts, the help one can give even when medically one is failing, the association with colleagues in all the departments of the hospital, the challenge of failure, the lack of knowledge of success, here lie compensation for the depression and humility for, after all, "True joy is found in the quest for what may after a weary journey prove unattainable."

The newly-qualified today has a bewildering variety of specialties to which he may devote his life. The Science of Surgery is once more drawing closer and closer to the Art of Medicine. The surgeon who corrects deformities, removes blemishes and repairs the effects of injury is being drawn more and more to exercise his skill in altering the environment of the body or in restoring an abnormal physiological state so that disease cannot thrive.

Radiotherapy is a young speciality but it has already achieved a status of the highest order in medicine. It can make a just claim on the best educated and the keenest brains of our young doctors, and it deserves serious consideration as a speciality worthy of their life's devotion. Gustav Forssell, who founded the Radiumhemmet of Stockholm, stated once that it was "not radium but radium efficiently applied that makes for success in treating cancer. Radium is an important agent in the struggle against cancer, but radium alone will never cure a patient. For the latter it is absolutely necessary to have well-equipped and thoroughly organised special clinics and able physicians who possess skill, knowledge and experience, and who are willing to devote life and soul to radiotherapy."

#### References:

- Cancer, Cutler M. & Busk F. W. B. Saunders 1938.  
Forssell G. Brit. Jour. Radiol. 1930. 30. 198-224.

## A WEEK WITH A LONDON G.P.

by D. H. BERGEL

A LARGE number of papers have appeared recently on the subject of General Practice, but few appear to be written to answer the question: "What does a G.P. spend his time doing?" Accordingly, I have not attempted to analyse cases seen into first or subsequent visits, but merely to record all cases dealt with in a week and to divide them up into rough categories for purposes of discussion; any classification of such material which claims to be much more than an aid to discussion is, to my mind, likely to be misleading; this point will be amplified later.

First, a few details of the practice considered. I spent a week in early November, 1954, with a doctor friend of mine practising in South London, in an area close to the river and served by three teaching hospitals (this latter fact can be expected to account for the relative lack of minor surgical cases, and of obstetrical work). This is a very overcrowded area, serving the many local light industries and providing many workers for the docks and transport: it is the rule for both parents to be out working all day. The doctor has a list of some 2,250, mainly within a radius of less than half a mile. In addition he is visiting medical officer to a nearby public assistance institution, a job which monopolises a large portion of his time, though the number of patients actually seen is not high.

November was said to be an average month and, in fact, during the week 223 "services" were performed, a figure agreeing closely with Stephen Taylor's estimate of five services per patient per year. No more than fifteen patients were seen more than once in the week, and there were no night calls; the doctor does not expect more than one a month.

These figures could be classified in the following way:—

Total Services	223
Men	82
Women	93
Children under 14	38
Visits	168
Attendances	37
Institution	18
V : A (excluding Institution)	4½ : 1

When the patients were classified systematically according to the disease or symptom which caused the service in question, the following figures were obtained:—

Respiratory and E.N.T.	92
Alimentary system	17
Social	17
Gynaecological and obstetrical	16
Skin	13
Psychological	11
Arthritis, "Fibrositis," etc.	11
Specific fever	10
Cardio-vascular system	8
Miscellaneous	23

Certain comments on these figures seem to be called for. The first and most important one concerns the impossibility of a really full classification. In this series all patients were allocated on the basis of presenting symptoms, but it was the exception to find one who could not be placed in other categories owing to the existence of other symptoms or previously diagnosed disease. In particular, the number of patients showing signs of minor psychoneuroses, in particular mild anxiety states, was very high and had I intended to show that a G.P.'s work is three-quarters psychology these figures would have done very well; someone else with a different bias could just as easily have made out a case for dyspepsia, upper respiratory disease, or stress disorders. Nowhere, I believe, is the old cliché about treating the patient rather than the disease more of value than in general practice. In practice it is possible to get a clearer view of the various factors to which an individual is reacting than anywhere else and although it may be of value to classify a surgical patient as "acute appendix," this system becomes meaningless in the world outside. These points must be remembered when attempting to evaluate statistics (always remembering I use the term in a somewhat rigid and possibly outmoded sense) concerned with general practice and this is the most valuable lesson I learned during the week.

Nevertheless, such rough figures as I have given help to show the main directions in which the doctor worked in a week. The

huge figure for respiratory disease consists almost entirely of acute sore throats, coughs and colds; when these are removed surprisingly little remains. Tuberculosis is becoming more of a rarity, but last year this G.P. had nine cases of carcinoma of the bronchus.

Those cases classified as "Social" include everything from certificates for rehousing to the weekly chat and gift of two shillings to the local reprobate; the task of sorting out patients and sending them to the correct agency is an immensely difficult one, and one which most newly qualified doctors can have little idea how to undertake.

In the next category are included twelve women who came for advice on and fitting of contraceptive devices. Little provision is made for such services under the N.H.S., and though entitled to, the doctor does not charge for them since he feels this will discourage those with the greatest need. This is a subject on which undergraduate teaching is sadly deficient; although most know the various devices employed few have any idea of the indications for any one in particular, still less how to fit and obtain them. It would surely be possible to remedy this defect which is likely to be felt with increasing keenness in the years to come. The other categories call for no particular comment, although the disproportion between the numbers of psychological and skin diseases seen (in reference to the former, remember only the presenting symptoms were used in

classification, otherwise the figure would be much larger) and the time allocated to this in the curriculum is obvious. The large number shown as miscellaneous further indicate the difficulties of any classification.

In conclusion, I should like to say that with the exception of those subjects previously mentioned, I was pleasantly surprised to find that hospital teaching does appear to be reasonably well adapted to the conditions to be expected in practice, though possibly children's diseases receive a smaller share than their due, within the obvious and acknowledged inherent defects of the hospital teaching system. However, I should like to add my plea to that of others in asking for at least a fortnight's general practice teaching as part of the curriculum, not to be taken in the students' own time; and not so much for the purpose of learning techniques which can only come with experience, but to allow all to appreciate better the peculiar problems and advantages of this work, and even to enable the newly qualified doctor to make a better-informed choice of career.

Finally, it only remains to thank the doctor for a highly instructive and enjoyable week and for the patient way in which he answered all my queries. Although I believe he would agree with me, I should add that all opinions stated here are my own, and therefore of necessity somewhat ill informed.

---

#### SO TO SPEAK . . .

##### In WOPs:

*To an overdue pregnant female:—*

Don't take an ambulance dear, take a taxi—on the whole, London cabbies are quite good midwives—if anything, bus crews are even better.

##### In MOPs:

I was given a note to take to the Lady Enema.

## HYPOCHONDRIASIS

by RICHARD DE ALARCON

THE practice of Medicine is considered an art, and, therefore, there is always plenty of scope for the personality and personal abilities of both doctor and patient. There are no rigid and infallible rules—the factors and variables involved are innumerable. Thus, in Medicine, the unexpected must always be anticipated.

Often this medical art can be very straightforward, when one sees text-book patients.

Unfortunately, this is not always the case, and there are patients who refuse to fit into a diagnostic pigeon hole in spite of all our efforts. These are bad enough, but there are some still more exasperating ones who have the effrontery to wail and complain of many pains and discomforts even though we have failed to discover any physical disturbance which may account for these symptoms. These patients are usually called hypochondriacs.

Hypochondriasis, by definition the existence of bodily complaints for which no physical cause can be found, is an anathema to the honest practitioner. Not only does it interfere with diagnosis, but it also delays treatment and often makes it unsuccessful; and diagnosis and treatment are the two ways in which a doctor shows his skill and justifies his existence. He is irked all the more by the consideration that there may be a genuine physical illness underneath which the hypochondriac's "silly behaviour" prevents him from seeing. He reproaches his patient for making so obscure and complicated what could be so luminous and clear if he only would stop all this nonsense.

Once a patient has been labelled as a hypochondriac the general attitude is to consider him a nuisance and a fake and pass him on to somebody else. The patient will then start his tour of all the outpatient departments, which Richard Gordon describes so aptly in his "Doctor in the House." This attitude is perfectly understandable. We have all felt it, and it expresses our professional frustration. However, it is not, strictly speaking, medical or even scientific, for pain is always something unpleasant for which the patient seeks our help, regardless of whether (or not) we can find a physical cause for it. If a hypochondriacal complaint is regarded

as a danger signal instead of merely a nuisance, it automatically becomes a positive symptom which may lead us to the basic illness in the same way as a fast pulse may lead us to the diagnosis of hyperthyroidism.

It is obvious that if the cause of the complaint is not somatic it must be mental, taking the latter in its broadest sense. This seems to be the case, as hypochondriacal complaints may be the expression of psychological conflicts of some sort, or an important symptom—often a prodromal one—of a psychosis. Gillespie goes as far as to consider a certain type of hypochondriasis as a definite clinical entity.

Hypochondriacal complaints can be found at any age. When they occur in children, they are useful indications that warn us that the child's emotional development is not going as smoothly as it should. According to Kanner, hypochondriasis in a child tends to be first suggested and then purposive. Thus more often than not we will find anxious, fussy overprotective parents who instil into their child this unhealthy bodily preoccupation. The reasons why they are so overconcerned with the child's health vary in each case, and are often difficult to define. Often the parents are psychoneurotic individuals and this excessive solicitude is one more expression of the general anxiety they live in. In others it may be to compensate their basically rejecting attitudes. This is often seen in cases in which the child is really not wanted for some reason or other, i.e., because it interfered with the mother's career, the marriage was forced by pregnancy, etc.

The child of such parents lacks real love and affection in spite of their apparent care. He is in need of attention from other people and will absorb it when available more readily than blotting paper sucks up ink. He soon discovers by experience that any small physical complaint will get his parents into a flap. Besides, invalidism has its advantages, which he will soon discover, and it will often be a handy way to get out of difficult situations. It also offers a means to express his reproach to his parents and make them feel guilty. Thus we see how a bodily preoccupation which permeated the parents'

attitude from the beginning is transferred to the child who then learns to use it for his own purpose and advantage. A practitioner who is aware of the significance this type of symptom has in children will refer the patient to a Child Guidance Clinic where the whole situation can be sorted out and much permanent damage avoided.

The milder cases he will be able to deal with himself, provided he is willing to devote some of his valuable time to this aspect of his patient's illness.

Hypochondriasis in psychotic children is not discussed because these cases are usually so disturbed that other symptoms catch the eye first.

In adult life hypochondriacal symptoms are mainly found in psychoneurotic individuals or in the more serious functional psychoses, such as schizophrenia and the various types of depression.

It is useful to know how they manifest themselves in these different illnesses, because they may give us helpful leads to an early diagnosis.

F. Brown studied hypochondriasis from a strictly clinical angle without giving any interpretation as to what may be the deep unconscious dynamics responsible for form and content of the symptoms. He analyses hypochondriasis in psychoneurotics and for a practical clinical purpose considers three simple mechanisms by which they may come about:

1. The autonomic disturbances which accompany anxiety, such as palpitations, hypermotility of the gut, muscular tension, etc., produce themselves abnormal bodily sensations. These sensations are usually uncomfortable and in these predisposed individuals the already existing anxiety will be turned then towards the body. A vicious circle is then created, i.e., anxiety produces palpitations which in turn will give rise to more anxiety.

2. The anxiety produced by internal and external conflicts is turned into a bodily symptom which is made more tolerable to bear. This is known as a conversion symptom in Freudian terminology. In these patients the anxiety is not generally obvious; it has been substituted by the symptom. In a case I saw of a refined, delicate woman married to a selfish and disagreeable man whom she disliked, the conflict between the desire to leave him and her sense of duty was solved

by the appearance of an obviously psychogenic unilateral blindness. The anxiety disappeared and was replaced by an indifference and disregard of her marital problems.

3. The symptom, more or less unconsciously, is meant to serve a purpose, i.e., when a symptom is used to gain sympathy from others or to justify a failure. In the latter case the illness provides the patient with a provisional shelter and prevents him from losing face.

These three mechanisms give a useful practical approach for dealing with patients, but as F. Brown points out they are rarely found in a pure state and in each patient a combination of the three is to be expected.

The hypochondriacal complaint will lead us in these cases to investigate the patient's previous personality and the more common areas where conflict is to be expected. In the same way the presence of absent knee and ankle tests would lead us to make a careful and detailed neurological examination and order a lumbar puncture.

The knowledge of the patient's previous personality will help us to assess his present state and the significance of his symptoms. When hypochondriacal symptoms appear for the first time in a man who has previously never worried about his health they carry a different meaning than they would if he had had them all his life.

The relatives can give us very valuable information about the previous personality. They may tell us "my husband has a worrying nature," "he crosses his bridges before he comes to them," "oh, he makes a big fuss over the slightest cold, it is a family joke, doctor, we always tease him for it."

The investigation of conflicts is not difficult if we know where to look for them. Family relationships, sex and work provide the main areas of conflict.

This investigation is required even when we feel the purposive factor is predominant. Some people have a greater facility to react this way and will do so under minor stresses. We may not be able to remove this reactive pattern but we may often be able to remove the stress. The severest forms of this group are the ones that give most trouble to the general practitioner. Sometimes it may be advisable not to remove the symptom. In the case of the woman mentioned above the removal of the symptom without previous preparation would probably have brought about marital separation.

There are also cases in which a physical basis for the symptom may be found, but its severity and the anxiety it produces is entirely out of proportion to the cause.

In the psychoses, hypochondriacal symptoms are frequently found, and may for months be the only symptoms before the full blown picture develops.

In schizophrenia, bodily complaints usually take a bizarre colouring. They strike us by their incongruity or their strangeness. The patient may claim some external power or influence is responsible for them, i.e., "His genitals are being shrivelled by atomic rays," "a spell has been cast on him and he cannot digest his food properly." The bizarreness of the symptoms should always make us suspect schizophrenia and when "external powers" are involved in their production they can be considered as typical and diagnostic.

But this is not always the case, and vague non-specific bodily complaints may be found in the prodromal phases. The possibility of schizophrenia should be kept in mind when these vague complaints appear in a young adult and persist in the absence of external factors. In the typical picture they seem to be expressed with a lack of the affect that one would expect from them. If we look for it we may find a decline in a work or study record which up to then had been very good. From the patient we should enquire about any oddity of inner experience, and from the relatives of change or abnormality of behaviour.

In the depressive illnesses we have a happy hunting ground for hypochondriacal symptoms. The illness itself can be accompanied by dryness of mouth, palpitations and constipation. But the real symptoms stem from the disturbance of mood.

Everything seems black and hopeless and the patient is overwhelmed by nihilistic ideas and the feeling of impending doom. He is to die. There is no hope for him. Why? Because his heart is going to stop, he may have cancer, V.D. which he contracted many years ago is now showing itself and will carry him to the grave, his bowels are rotting and they are clogged and he must not eat any more, etc. Any organ or function of the body may be the site of these nihilistic ideas and complaints, but there seems to be a preference, especially in the elderly group of patients, for the gastrointestinal tract. There may even be an

imagined insomnia and a patient may tell us he only sleeps two or three hours in the whole night, even though his wife or the night nurses are certain he sleeps a good seven hours.

It may happen that the patient may hide his state of mind very well and is able to smile and put up a reasonably good front while he tells us about his symptoms. This is a particularly dangerous group, because the possibility of suicide hangs like a sword of Damocles over every depressed patient. It is in these patients that the study of the hypochondriacal symptoms is most useful.

A patient of mine spent nearly two years touring the O.P. departments of nearly all the London teaching hospitals because of constipation and difficulty in passing water. He was subjected to a wide variety of investigations and treatments among which were streptomycin, B12 injections and even prostatic massage. Finally he was referred to a psychiatrist only after he had tried to strangle his wife and commit suicide himself. He afterwards confessed how, during the last year or so, he had many times contemplated suicide and had often secreted a knife from his house with the intentions of killing himself in a park. Much suffering and danger would have been avoided if someone had taken the trouble of asking him how he felt inwardly and what thoughts troubled his mind.

An excessive preoccupation with the genitals and intestinal tract in a middle-aged person should always make one suspect an involuntarily depression.

In the elderly, a thorough physical examination with additional investigations as required should be done in every case. If nothing is found and the patient does not respond to the reassurance given, and keeps on coming up to the surgery every day, a psychiatric examination should be considered.

On the other hand the converse can happen and symptoms dismissed as hypochondriacal may be caused by some real physical illness underneath. The following case is an example of an omission of this sort.

Mr. C. R., a clerk, aged 61, had a depressive illness characterised by irritability, loss of interest, poor sleep and appetite, with loss of weight and mild complaints about his bowel function. He was treated with E.C.T., recovered completely and returned to his work. Two years later he again began to

eat poorly and lose weight. He became irritable and complained of constipation and of having a lump in his throat which nobody else could see. The family disregarded his complaints and thought "the nervous trouble" was coming on again. Finally he was admitted to a psychiatric hospital in a cachectic state. The lump in his throat proved to be an asymmetry of the larynx and an x-ray revealed a large cavitating carcinoma of the lungs. Up to the time of his death a few weeks later, he was extremely depressed and anxious about his bowel functions: in spite of the constant cough he never expressed any worry about the state of his chest.

This case not only shows the necessity for a complete physical examination, but also how an organic illness can mobilise a predisposition to depression which may show

itself in a hypochondriacal concern about organs and functions far removed from the site of the true lesion. Incidentally, the brother of this patient also had a depressive illness and committed suicide.

I hope I have shown above the main ways in which these apparently absurd and groundless symptoms may enrich the art of diagnosis and therapy.

The reasons why the patient may be concerned over the proper functioning of his peristaltic waves rather than of the circulation of his ear lobes in any particular case is out of the scope of this paper, because the factors concerned are not well known and would involve a protracted discussion on the symbolic value attached to the different parts of the body and their interpretations by the different psychoanalytical schools.

---

### POST MORTEM

They all turned up to 'is funeral  
They said: "Wot a bitter blow!  
'Ow sad to lose one so beyond reproach"—  
But 'is languishing sprite was below.

The priest mumbled prayers at the altar  
An' Masses was offered as well  
An' 'is body was borne down the aisle—  
But 'is soul was burning in 'ell.

They said 'e was kind and owed nothin'  
As flowers on 'is coffin they laid—  
While 'e suffers eternal chastisement  
For the debt that 'e never quite paid.

For a man may 'ave many admirers  
'Oo may think 'im to be a good type,  
But it counts not a speck on the scale  
When the reckonin' moment is ripe.

J.D.P.

### ZERMATT 1955

Last year, it was said that Bart's appeared on the ski slopes here like the Gadarene swine! During the intervening year we doubled our litter and no less than fifty-three set out from Victoria to attempt a more controlled descent.

The journey by third-class rail is best left in the sub-conscious. At the end of it one vows never to travel this way again, but somehow always does.

Like most resorts in Switzerland, Zermatt had been having rain, and we arrived to find the Matterhorn shrouded in mist, but snow conditions otherwise excellent. As last year a day later the sun shone, and apart from one day's snowing, never left us for the rest of the fortnight.

All but six of us were accommodated in the Hotel Dom, and settled down to enjoy the delicious meals and kindly hospitality of the Lauber family.

Special student rates were arranged for ski equipment, scrool, and lifts and we were soon setting out in our various classes to conquer all the runs available.

While many struggled with skis for the first time on the nursery slopes, it was barely two days before the senior class had done the steepest slopes Zermatt has to offer. Indeed, they progressed from soft snow running where one cuts one's own tracks in virgin snow, to the more difficult deep snow, and skiing between the trees. Most of the class were usually to be found wrapped round the trees: Robin Wynne-Jones had his hat, and indeed practically his scalp, removed by an overhanging branch. Henry Blake successfully incorporated himself in his own private avalanche while Monica Taggart, our most accomplished woman skier, completed the course with maddening skill and ease. Later we achieved a rare ambition for that time of year, by going on a day tour to Italy. This included a 3½-hour climb on skis, with a delightful ski down to the frontier, and lunch in the hot sun at Brenil (Carvinia). The return is made by cable car, and then a steep ski down to Zermatt.

The snow continued to be ideal, there was more of it than last year, just when it was becoming icy an overnight covering averted danger. All the classes improved more rapidly than last year, even the most timid becoming quite intrepid skiers before the end

of the holiday. While the most adventurous were travelling so fast, and so out of control that the ski instructor's broken English was strained to its very limit to influence them.

During the first week the best runs were from the Blauherd hut. The Standard, National, Tiferen-Reid, Rio, and a delightful soft snow run to the village of Findelen, were open. In the last week we transferred our affection to the Gornergrat which was by then in perfect condition.

Considering the size of our party and the many different types of snow encountered, two fractures and one severe sprain, together with the usual run of "knees and ankles" was very lucky, especially as the major accidents occurred towards the end of the fortnight.

At tea-time, and in the evenings, we enjoyed hot chocolate and local wines at favourite restaurants and bars, and provided most of the lively social life of the off-season. Two old friends struck up our "Salad Days" selection every time we appeared in the Walliserhof, and although our recordings of the tunes were not exactly professional, many of the party will, I am sure, always remember the holiday when the music is played in England.

We annexed film stars Hugh McDermott and Dorothy Tutin, and one of the girls got a big wink from Farouk!

Tailing and Fondue parties were popular, the highlight of the Vicar's party being the song of the "Three Parsons of Puddle" from the pot pourri. The town also arranged floodlit ski jumping and ice-hockey in fancy dress.

The Ski Club of Great Britain welcomed us to their pay-for-your-own-drink cocktail parties and added an all too reminiscent splash of Kensington to the party spirit. Several second- and third-class tests were taken. Hugh Bower had bad luck breaking a ski in the First-Class Running Test, and Henry Blake in stopping to pick up his goggles narrowly missed his Second-Class by ten seconds.

Finally, we threw the annual farewell party for instructors, and other friends of Bart's, now too numerous to mention individually, and were especially pleased to have the president, Mr. John Howkins with us.

Before completing this account of the 1955 party, I would like to thank Henry Blake, John Struthers and Hugh Bower for their expert organisation of it for months before in England. It entails much hard work which is not always generally realised. In two years the Ski Club has surely won a place beside the other in Bart's sporting activities and I hope we shall continue to send annual

parties to revel in the thrills and spills of skiing among the mountains of Europe.

The Ski Club will be showing films made last year, and this year, of the Bart's party skiing in Zermatt at the College Hall at 8.30 p.m. on March 1st. All members, and any one interested will be welcome.

PETER RYCROFT.

## UNIVERSITY OF OXFORD

### 2nd B.M. EXAMINATION Michaelmas Term, 1954

#### Medicine

Cotter, P. J. M.	Wickham, A. C. M.	Keene, M.	Mitchell, P. J.
Holden, H. M.	Dingle, H. R.	Fairley, G. H.	

#### Surgery

Barnes, J. M.	Wickham, A. C. M.	Holden, H. M.	Cotter, P. J. M.
Fairley, G. H.	Dingle, H. R.	Mellish-Oxley, K. G.	Mitchell, P. J.

#### Midwifery

Cotter, P. J. M.	Dingle, H. R.	Fairley, G. H.
Keene, M.	Wickham, A. C. M.	Mitchell, P. J.

The following completed the examination for the Degree B.M., B.Ch. :—  
Cotter, P. J. M. Mitchell, P. J. Dingle, H. R. Wickham, A. C. M. Fairley, G. H.

## UNIVERSITY OF CAMBRIDGE

### FINAL M.B. EXAMINATION Michaelmas Term, 1954

#### Pathology and Pharmacology

Buckle, R. M.	Rothwell-Jackson, R. L.	Phillips, B. S.	Norbury, K. E. A.
Hudson, C. N.	Church, J. C. T.	Yerbury, G.	Struthers, J. L.
Maclay, W. S. S.	Jewell, G. J.	Earnshaw, G. J.	
Nottidge, R. E.	Miller, A. B.	Jones, P. M.	

#### Principles and Practice of Physic

Aldous, I. R.	Gawne, E. F. D.	Burrows, P. J.	Dinkel, P. A.
---------------	-----------------	----------------	---------------

#### Principles and Practice of Surgery

Aldous, I. R.	Smith, G. W. T.	Maltby, J. W.	Ogden, W. S.
Gawne, E. F. D.	Bourne, W. R. P.	Burrows, P. J.	

#### Midwifery and Gynaecology

Aldous, I. R.	Backhouse, I. H.	Bourne, W. R. P.
Burrows, P. J.	Gawne, E. F. D.	Nainby-Luxmoore, R.

The following completed the examination for the Degree M.B., B.Chir. :—  
Backhouse, I. H. Bourne, W. R. P. Burrows, P. J.  
Gawne, E. F. D. Maltby, J. W. Ogden, W. S.  
Nainby-Luxmoore, R. Yerbury, G. Aldous, I. R.

## UNIVERSITY OF LONDON

### 1st M.B. EXAMINATION December, 1954

Guillochon, M. A.	Hare, B. W. E.	Price, R. N. W.
-------------------	----------------	-----------------

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

Birt, R. C.	Marshall, R. D.	Donaldson, W.	Musgrove, J. S.
Durrant, K. R.	Peebles, D. J.	Garrod, J. A.	Ponnampalam, M. S.
Harris, D. M.	Roden, A. T.	Hudson, M. J. K.	Watson, A. C.

### FINAL EXAMINATION

#### January, 1955

#### Pathology

Kirk, A. G.	Farrar, J. F.	Buckle, R. M.	Black, D. H.
Lloyd, A. G.	Gray, A. J.	Nwachukwu, P. O.	Irwin, M. H. K.
			Phillips, B. S.

#### Medicine

Robinson, M. R.	Grant, B. G. H.	Dormand, G. S.	Ellis, C. D'A.
Boxall, T. A.	Gray, A. J.	Mears, M. E.	Black, D. H.
			Luscombe, A. H.

#### Surgery

Kirk, A. G.	Dinkel, P. A.	Barnes, J. M.
-------------	---------------	---------------

#### Midwifery

Gray, A. J.	Lloyd, A. G.	Ellis, C. D'A.	Boxall, T. A.
-------------	--------------	----------------	---------------

The following have completed the examination for the Diplomas M.R.C.S., L.R.C.P. :  
Dormand, G. S. Mears, M. E.

### M.S. EXAMINATION. PART I

#### December, 1954

Rogers, N. C.

### M.D. EXAMINATION, PART I

#### December, 1954

Butcher, P. J. A.

Wyatt, H. J.

## CONJOINT BOARD

### FIRST EXAMINATION

#### December, 1954

#### Pharmacology

Arthur, J. K.	Bott, M. M. L.	Bergel, D. H.	Irwin, M. H. K.
Burton, M. F. D.	Black, D. H.	Ashworth, E. J.	
Boyton, J. O.	Lloyd, D. B.	Staley, M. E.	

### FINAL F.R.C.S.

#### December, 1954

Calderwood, R. W. L.	Lahz, J. L. C.	Bhiwapurkar, N. D.	Smith, I. M.
Griffiths, J. D.	Braimbridge, M. V.	Gillman, J. C.	Gordon, I. J.
Akehurst, A. C.	Timmis, P.	Gabriel, A.	Sinh, G.
Yule, J. H.	Green, N. A.	Mitra, A. K.	Hoare, L. L.
Evans, I. L.	Ryan, E. L.	Juby, H. B.	Welsh, R. I. H.

## RECENT PAPERS BY BART'S MEN

- ADRIAN, E. D. Address of the President, Dr. E. D. Adrian, O.M., at the Anniversary Meeting, November 30, 1954. *Proc. roy. Soc., Series A*, 227, Jan. 20, 1955, pp. 279-287.
- Synchronised discharges from the organ of Jacobsen. *J. Physiol.*, 126, Nov., 1954, 28-29P.
- ANDREW, JOHN. Sacralization: an aetiological factor in lumbar intervertebral disk lesions, and a cause of misleading local signs. *Brit. J. Surg.*, 42, Nov., 1954, pp. 304-311.
- \*ANDREWES, C. H. Myxomatosis in Britain. *Nature*, 174, Sept. 18, 1954.
- \*— (and others). Neutralising action of human nasal secretions on neurotropic influenza virus. *Brit. J. Exper. Path.*, 35, June, 1954, pp. 264-269.
- AUMONIER, F. J., FRANKLIN, K. J., and WINSTONE, N. E. Evocation of milk formation in the virgin rabbit. *J. Physiol.*, 126, Nov., 1954, p. 54P.
- \*BETT, W. R. Abraham de Moivre (1667-1754). *Med. Press*, Dec. 8, 1954, p. 551.
- \*— A little judicious levity in dermatology. *Miss. Med.*, 51, Oct., 1954, pp. 828-830.
- \*— Auguste Rollier (1874 - 1954). *N.A.P.T. Bull.*, Dec., 1954, p. 222.
- \*— Carl Magnus Furst (1854-1935). *Med. Press*, Dec. 15, 1954, p. 574.
- \*— Carl Partsch (1855-1932), Surgeon and dentist. *Med. Press*, Jan. 5, 1955, p. 19.
- \*— George Crabbe (1754-1832), Poet and opium-eater. *Alchemist*, 18, Dec., 1954, pp. 612-613.
- \*— Harry Mitchell Sherman. American orthopaedic surgeon (1854-1921). *Med. Press*, Nov. 24, 1954, p. 505.
- \*— Jokicui Takamine (1854-1922). Discoverer of adrenaline. *Chem. & Drugg.*, 162, Nov. 20, 1954, p. 523.
- \*— Maimonides (1135-1204). *Alchemist*, 18, Dec., 1954, p. 607.
- \*— Maimonides (1135-1204). Physician, pharmacist, philosopher. *Chem. & Drugg.*, 162, Dec. 4, 1954, p. 577.
- \*— Maimonides. Physician-Philosopher, 1135-1204. *Nursing Mirror*, 100, Dec. 17, 1954, p. xiv.
- \*BETT, W. R. Morris Simmonds (1855-1925) of "Simmonds' disease." *Med. Press*, Jan. 5, 1955, p. 19.
- \*— Morton Prince (1854-1929). Pioneer psychopathologist. *Med. Press*, Dec. 22, 1954, p. 597.
- \*— Paul Sabatier. Founder of catalytic chemistry. *Chem. & Drugg.*, 162, Nov. 6, 1954, p. 477.
- BROOKE, C. O. S. BLYTH. An alternative to health centres. *Lancet*, I, Jan. 8, 1955, pp. 93-94.
- BURROWS, HAROLD. Deferred nidation of the blastocyst, with reference to the length of gestation. *J. Obstet. Gynaec. Brit. Emp.*, 61, Dec., 1954, pp. 762-763.
- \*CAMPBELL, E. D. R. The assessment and treatment of facial palsy. *Brit. J. Physical Med.*, Oct., 1954.
- CATES, J. E. (and others). Aldosterone in urine of normal man and of patients with oedema. Its increased recovery after hydrolysis with acid and with beta-glucuronidase. *Brit. med. J.*, I, Jan. 22, 1955, pp. 196-199.
- CAVE, A. J. E., GRIFFITHS, J. D., and WHITELEY, M. M. Osteo-arthritis deformans of the luschka joints. *Lancet*, I, Jan. 22, 1955, pp. 176-179.
- \*CHAMP, C. J. Carcinoma of body of uterus found on endometrial biopsy. *Brit. med. J.*, II, Dec. 4, 1954, pp. 1336-1337.
- COHEN, E. LIPMAN. Isoniazid in the treatment of tuberculosis of the skin. *Brit. Encycl. Med. Pract., Interim Suppl.* 147, 1954, 4.
- COTES, J. E. The relationship between ventilation, CO<sub>2</sub> tension and body temperature in one normal subject performing steady state exercise breathing oxygen. *J. Physiol.*, 126, Nov., 1954, 49-50P.
- CURETON, R. J. R. See, HANBURY, W. J. —and SIMON, G.
- \*DARMADY, E. M., (and BROCK, R. BARRINGTON). Temperature levels in hot-air ovens. *J. clin. Path.*, 7, 1954, pp. 290-299.
- ELLIS, GEORGE. Anaesthesia and the common cold. *Anaesthesia*, 10, Jan., 1955, pp. 78-79.

- \*FLETCHER, C. M., (and others). Cavitation in the massive fibrosis of coal-worker's pneumoconiosis. *Thorax*, 9, 1954, pp. 260-272.
- , (and others). Chronic bronchitis. An attempt to control chronic infection with haemophilus influenzae by aerosol therapy. *Lancet*, I, Jan. 15, 1955, pp. 120-122.
- FRANKLIN, K. J. See, AUMONIER, F. J., —, and WINSTONE, N. E.
- \*GARROD, L. P. Mervyn Henry Gordon, 1872-1952. *Obituary Notices of Fellows of the Royal Society*, 9, Nov., 1954, pp. 153-163.
- \*GARROD, O., (and others). Antithyroid activity and toxicity of mercazole and neo-mercazole. *J. Clin. Endoc.*, 14, Oct., 1954, pp. 1230-1245.
- GRIFFITHS, J. D. See, CAVE, A. J. E., —, and WHITELEY, M. M.
- HANBURY, W. J., CURETON, R. J. R., and SIMON, G. Pulmonary infarcts associated with bronchogenic carcinoma. *Thorax*, 9, Dec., 1954, pp. 304-312.
- HELPS, E. P. W., and McDONALD, D. A. Streamline flow in veins. *J. Physiol.*, 126, Nov., 1954, pp. 5-6P.
- HOWELL, TREVOR, H. Problems of the aged and chronic sick. *Med. Press*, Dec. 22, 1954, pp. 587-592.
- HUBBLE, D. V. Endocrine relations. *Lancet*, I, Jan. 1, 1955, pp. 1-5.
- \*HURT, R. L. Osteopathia striata — Voorhoeve's disease. *J. Bone Jt. Surg.*, 35B, 1953, pp. 89-96.
- \*JENKINS, J. S. The thromboplastic activity of Russell's viper venom and its relationship to Factor VII. *J. clin. Path.*, 7, Nov., 1954, pp. 287-289.
- \*JEWESBURY, E. C. O. Some clinical epileptic oddities. *Brit. med. J.*, II, Dec. 25, 1954, pp. 1518-1520.
- \*KAZANTZIS, G., (BERNSTEIN, L., and —). The relation between the fast vital capacity curves and the maximum breathing capacity. *Thorax*, 9, Dec. 1954, pp. 326-339.
- KENNAWAY, SIR ERNEST. A note on cancer research in Finland. *Med. Press*, Dec. 1, 1954, pp. 520-522.
- \*MCCURRICH, H. J. A method of restoration of the bile flow after damage to the common bile duct. *J. Int. Coll. Surg.*, 22, Sept., 1954, pp. 243-246.
- McDONALD, D. A. See, HELPS, E. P. W., and —.
- MAXWELL, J. The incidence of cancer of the larynx in relation to the incidence of cancer of the bronchi. *Lancet*, I, Jan. 22, 1955, p. 193.
- \*PLEYDELL, M. J. Infective hepatitis in a boys' hostel. *Brit. med. J.*, II, July 31, 1954, pp. 285-286.
- \*RODEN, A. T. The common cold as a virus problem. *Practitioner*, 173, Nov., 1954, pp. 565-570.
- ROSE, LOUIS. Some aspects of paranormal healing. *Brit. Med. J.*, II, Dec. 3, 1954, pp. 1329-1332.
- ROTHIAT, J. Frank Lloyd Hopwood. Obituary notice. *Proc. Physical Soc. A*, 67, 1954, p. 1127.
- Nuclear power. *J. Inst. Fuel*, 26, Aug., 1953, pp. 109-114.
- Prof. Stefan Pienkowski. *Nature*, 173, Jan. 16, 1954, p. 105.
- , and OWEN, G. M. The biological half life of <sup>131</sup>I in thyroid carcinoma. *Proc. 2nd Radioisotope Conf. Oxford*, July, 1954, pp. 68-75.
- , (and others). Scattering of 9.5 Mev protons by carbon and oxygen. *Physical Rev.*, 92, Dec. 1, 1953, pp. 1266-1267.
- , (and others). Interaction of 19 Mev deuterons with carbon. *Phil. Mag.*, Ser. 7, 45, p. 1200.
- , (and others). Interaction of 19 Mev deuterons with oxygen. *Physical Rev.*, 92, Dec. 1, 1953, pp. 1268-1269.
- , (and others). The scattering of deuterons and protons by alpha particles. *Phil. Mag.*, Ser. 7, 45, 1954, p. 1090.
- , (and others). Range-energy relation in nuclear track emulsions for protons of energy up to 21 Mev. *Nature*, 173, June 19, 1954, pp. 1180.
- RUSSELL, BRIAN, and THORNE, N. A., See also, WORMALL, A. Skin reactions beneath adhesive plasters. *Lancet*, I, Jan. 22, 1955, pp. 67-70.
- SHOOTER, R. A. Antibiotics. *Brit. Surg. Prac.*, 1954, pp. 183-193.
- SIMON, GEORGE. See HANBURY, W. J., CURETON, R. J. R., and —.
- STORY, PETER. Protein infections in hospital. *J. Path. & Bact.*, 68, July, 1954, pp. 55-62.
- TEARE, DONALD, (NICKOLLS, L. C., and —). Poisoning by cantharidin. *Brit. Med. J.*, II, Dec. 11, 1954, pp. 1384-1386.



- TERRY, R. B. The onychodermal band in health and disease. *Lancet*, I, Jan. 22, 1955, pp. 179-181.
- WARWICK-BROWN, R. Some physical properties of vascular grafts with particular reference to the suture-holding power after preservation. *Brit. J. Surg.*, 42, Nov., 1954, pp. 316-318.
- \*WERFER, F. PARKES. A note on "male" and "female" teratomata chorion-carcinoma in males with the occasional occurrence of acute gynaecomastia. *Med. Press*, Dec. 8, 1954, pp. 550-551.
- \*—. Case of achlorhydric anaemia in a male followed up for 20 years. *Brit. med. J.*, II, Dec. 25, 1954, pp. 1529-1530.
- WEITZMAN, DAVID. The mechanism and significance of the auricular sound.

#### BIRTHS, DEATHS AND MARRIAGES

##### Births

DINGLEY.—On January 15, to Margaret, wife of A. Gordon Dingley, a daughter (Susan Lowther).

HINDLE.—On December 31, to Gweno, wife of Dr. John Hindle, a son (Hugh Ross).

JONES.—On January 14, to Elaine, wife of Dr. Ralph Francis Jones, a son (Steuart).

NICOLAS.—On January 1, to Pearl, wife of Dr. J. C. Nicolas, a sister for Robert and Margaret (Rosemary Florence).

PITT.—On January 11, to Penelope, wife of Dr. Peter Pitt, a son (Colin Peter), a brother for Gillian and Cherry.

ROFFEY.—On January 12, to Anne, wife of Dr. P. J. Roffey, a daughter (Jane Matilda).

STRETTON.—On January 11, to Beryl and Dr. Lionel J. Stretton, a son (Jeremy).

WEBER.—On December 29, to Rosalie, wife of Dr. G. N. Weber, a brother (Jonathan Norden) for the twins.

WHITEHEAD.—On January 12, to Feithlinn, wife of Dr. Brian L. Whitehead, a son.

##### Deaths

CASTELL.—On January 1, Samuel Percy Castell, aged 61. Qualified 1918.

JOEKES.—On January 2, Theodorus Joekes, aged 72. Qualified 1916.

- Brit. Heart J.*, 17, Jan. 1955, pp. 70-78.
- WHITELEY, M. M. See, CAVE, A. J. E., GRIFFITHS, J. D., and —.
- \*WINNICOTT, D. W. Two adopted children. *Case conf.*, 1, June, 1954, pp. 4-11.
- \*—. Mind and its relation to the psychosoma. *Brit. J. Med. Psychol.*, 27, 1954, pp. 201-209.
- WINSTONE, N. E. See, AUMONIER, F. J., FRANKLIN, K. J., and —.
- WORMALL, A. The use of radioactive isotopes in immunology. *Brit. J. Radiol.*, 28, Jan. 1955, pp. 33-38.
- \*—, and ROTBLAT, J. Frank Lloyd Hopwood. *St. Bart's Hosp. J.*, Aug., 1954.
- \*Reprints received and herewith gratefully acknowledged. Please address this material to the Librarian.

JONES. On January 9, Cecil Meredyth Jones. Qualified 1912.

##### Wedding

JONES—DAVIES. — The marriage took place on January 8, of Dr. Arthur Jones and Dr. Margaret Davies.

##### Engagements

Mr. Joseph (Gerald) Siegler to Miss Brenda Freeder.

Mr. H. R. Dingle to Miss Marion Campbell.

Mr. Bill Harvard to Miss Mhairi Bott.

Mr. J. A. Tait to Miss A. F. Lowe.

Surgeon Lieutenant D. B. L. Skeggs to Miss Margaret Anne Youngleson.

##### Royal College of Surgeons

Dr. C. J. CUNNINGHAM has been appointed Sir William Collins Professor of Human and Comparative Pathology in the College.

##### Royal Society

Dr. F. D. ADRIAN, O.M., was re-elected President.

##### British Association of Plastic Surgeons

At the annual general meeting in December, the following officers and council (of Bart's) were elected for 1955:—

President: PROFESSOR T. POMFRET  
KILNER.

Council: MR. P. H. JAYES.

## THE CAROL CONCERT

On December 14, in the Church of St. Bartholomew-the-Great, the Rahere Choir gave their first concert for many years. In the last few months a group of enthusiasts had re-formed the choir, and some fifty of them gave a very creditable and immensely pleasureable performance to a large audience. They are all to be congratulated and it is only to be hoped that the choir will now go from strength to strength.

Previous to the performance, posters had appeared around the hospital calling our attention to the concert (not to be confused with the traditional Festival of Nine Carols held in St. Bartholomew-the-Less). And our appetites had been whetted by the hope of hearing at least a few of the carols we wanted. A cursory glance at the programme dispelled any misgivings; and, oh joy, at least we were going to be allowed to sing some for ourselves. A brief moment's reflection before the concert started made us aware of the magnificent setting we were privileged to view—never let anyone clean the stone of St. Bartholomew-the-Great!

It would be unconstructive to sum up the concert by saying it was "lovely," not that it wasn't, but because it could have been bettered. I do not intend to run through the individual items, a list of which appears at the end. On the whole the choir sang very well and in "Lallaz my Liking" and particularly in "O Little One" by Bach they gave really musical performances. The male voices didn't seem to achieve such a happy effect. Perhaps this was not entirely their fault as it is always difficult to choose suitable music for men only to sing. "The First Noel" is not a carol to be sung by a small group, or for that matter by any size

choir at all. The same applies to "Adeste Fidelis" and "Good King Wenceslas." Essentially, they all belong to that small group of carols that everybody knows, and therefore should either have been left out of the concert or should have been given as fodder to the unmusical masses to bellow at! The female voices, on the other hand, were a delight to listen to and their "Tyrolean Cradle Song" was beautiful as it echoed round the clerestory of the old church. Again, the singing of the soloists in the "Coventry Carol" was sheer delight—helped by a really firm contralto line there was a fine balance of harmony—and to your scribe this was the highlight of the evening.

Lastly, a brief word about the programme as a whole. This was meant to be a Carol Concert, and in fact turned out to be half a Carol Service and as such fell between two stools. The appearance of the Lesson in the middle brought us rudely back to the Service and seemed to be a little out of place, and vice-versa the same could be said about the organ solos. If Service it was to be, then nothing could have been more suitable or wonderful than a Festival of Six or Nine Carols; and if Concert it was to be, then there should have been groups of different types of carols arranged with as much continuity as possible. If this sounds unduly harsh, it is not meant as such, but it is hoped that it is constructive.

Whatever may have been written here there is no shadow of doubt that the efforts of the Rahere Choir were very much enjoyed and appreciated by all of the audience and we look forward to hearing their next concert at Easter.

HUGH BOWER.

#### THE RAHERE CHOIR

The choir will give a concert of Easter Music on Tuesday, March 29, at 8.45 p.m. in St. Bartholomew-the-Great. Admission free.

## SPORT

## RUGBY

## St. Bart's v. Civil Service. Away.

Lost 9—10 pts.

The game was played in an icy wind on a hard ground. Civil Service kicked off and play commenced at a cracking pace which was maintained throughout, despite the recent Christmas and New Year festivities.

After about 20 minutes of play in which the Hospital were only just the better side, Badley kicked a magnificent penalty goal. Subsequently Civil Service played much harder and play continually swept from one end of the field to the other. Half-time Civil Service 0, Bart's 3 pts.

In the second half the fitness and speed of Civil Service began to make itself felt and they were soon pressing hard on the Hospital line, finally bursting over near the Hospital for a converted try. The Service pack continued to press, and the game progressed with a series of lines out and scrums on the Bart's line. Eventually a kick by Cohen following a set scrum was charged down and Service scored a further try near the corner flag. A fine kick gave them the extra points.

Bart's then pulled themselves together and play settled down near the half way line. From a fine run by Graham and a bout of interpassing Macadam was able to force his way near the corner. The kick failed. Ten minutes later a similar run by Tallack enabled Macadam to score again the opposite flag. The conversion again failed.

## St. Bart's v. Catford Bridge at Hayes Common. Won 6—0 pts.

This was the first game after the thaw and as such was disappointing. The ground was soft and exceedingly slippery and the whole match was played in a drizzling rain and slight fog. Berry playing in his second match for Bart's played an excellent game.

Within two minutes of the kick-off Bart's were in the Catford 25 and remained there for about 20 minutes. Several attacks were made during this time but on each occasion, a slip caused the attack to be halted. Towards half-time Plant crossed the Catford line near the corner but was not allowed a try due to an infringement. Some five minutes later, however, Bart's reaped their reward when Lammiman on the opposite wing scored an unconverted try.

In the second half Bart's continued to overwhelm their opponents outside the

scrum, but had little backing from a lazy and unfit pack.

About half way through this half Lammiman again crossed for an unconverted try. Ninety seconds from time Bart's lost Jewell who had to be carried from the field with a back injury.

This was his first match in the senior XV since his injury at Woodford in November. The club has suffered a great loss this season as a result of his misfortunes, and hope that he will soon be with us again.

## St. Bart's v. O.M.T. at Chislehurst. Won 11 pts. — 3.

Conditions were almost ideal on this day with a slight wind blowing down the slope. Bart's without Goune and Phillips took the field with some trepidation especially as O.M.T. were captained by D. G. S. Baker who played a grand game for England against Wales last Saturday.

The game began at very slow pace and the visitors were soon pressing taking the lead after 10 minutes with a fine penalty goal by Baker.

The visitors were continuing to press when Scott-Brown made a superb break-away, passing inside to Lammiman, who then had no one to beat but was left to run three quarters of the length of the field. This he did admirably out-running all pursuers and touching down under the posts. Badley converted.

The pace quickened at this point, and play became mostly confined to the visitors' half. After the interval Bart's increased the pace of the game, and did nearly all the attacking. A forward rush was crowned by a good effort by J. Benidik who charged over the line. The try was not converted.

Fifteen minutes from time Scott-Brown sustained an injury to his ankle, and had to go off.

Bart's unabashed continued to press, and Cohen added a further try after a hard run on the blind side. The conversion again failed.

With the return of Scott-Brown five minutes from time Bart's set up heavy pressure, and Mackenzie who had played a great game in quieting Baker, crossed the visitors' line after a determined run. A try was however disallowed through an infringement. This was one of Bart's most notable victories this season.

## FOOTBALL

We played Charing Cross and Royal Dental in the 2nd round of the U.H. Cup at Chislehurst on January 26. After narrowly beating Georges in the first round we approached the match with some doubts as Charing Cross have a considerable reputation and could boast six U.H. players to our one, Gould at left wing being our only representative.

Our opponents kicked off with the wind behind them and began the game with tremendous confidence, keeping the ball in our half for most of the first quarter of an hour. However, we conceded a corner and an inside forward headed it neatly in to put us one down. Now however we began to get rather more of the play and twice our forwards hit the crossbar. In the second half we had the wind behind us and for the first time we definitely had the upper hand. Our advantage was chiefly in midfield. With three minutes to go, Hackett, who had performed prodigies at right half, suddenly unloosed a scorching shot along the ground from about thirty yards out which somehow evaded the whole defence. In spite of extra time there was no further score.

The bouquet for the best player of the day

must undoubtedly go to Peter Burrows our goalkeeper.

The date of the replay has not been fixed yet. Team: Burrows; Sharer (captain), Kennedy; Viner, Juniper, Hackett; Gould, Pilkington, Berry, Pemberton, Andarn.

## FENCING CLUB

The club still meets Wednesday afternoon under the tuition of Professor Delzi. A number of new members joined the club in October and this has helped us in arranging an additional meeting one evening a week.

In the Inter-Hospitals Fencing Cup Competition, the Club lost in the first round to the London Hospital who subsequently went on to win against St. Thomas's in the final.

Results so far this season are:—

4F + 3S v. St. Thomas Hospital. Won 13—12.

4F - v. London Hospital (Inter Hospitals Cup). Lost 5—11.

3 F.E.S. v. Guy's Hospital. Won 17—10

4F + 3E v. L.S.E. Lost 8—17.

3F v. Royal Free Hospital (Ladies' Team). Won 6—3.

Regarding outside activities we must congratulate E. R. Nye on becoming London University Epée Champion for 1954.

## BOOK REVIEWS

**The Story of Medicine.** by Kenneth Walker. Hutchinson, (1954), pp. 343, illus. 21s.

Mr. Kenneth Walker is the author of several fascinating volumes, and we are delighted that his versatile pen should have turned towards the history of medicine. This book is not a chronological account bursting with dates and bibliographical references, and it adds nothing new to our knowledge of medical history, but it is the best popular history of the subject that has appeared since Osler's *Evolution of modern medicine*.

Catering for the layman, medical student and all interested in past events, the chapters of this book unfold the story in an entertaining manner, and the numerous illustrations add to the value of the text. We note, however, that the remains of Jeremy Bentham are not given their correct location, and the index is not only inadequate but inaccurate.

The author takes us back to the earliest civilisation of Babylon, China, Egypt, Greece and Rome, gradually bringing us up to modern times, and introducing us to the outstanding figures and schools of thought that have influenced the development of medicine during their respective periods. The final chapter devoted to "Quackery" links the old with the new, and readers will find many "modern" ideas initiated in the depths of the past. One of the fascinations of medical history is that there is nothing final

about it, and every writer presents new viewpoints that arouse fresh interest.

Mr. Kenneth Walker has succeeded admirably in providing a stimulating introduction to the history of medicine. The book has been attractively produced by the publishers at a comparatively low price, and it will be received with enthusiasm by those for whom it is intended. There are few who would not benefit from reading its contents.

**Textbook of Medicine.** Edited by Sir John Corybeare and W. N. Mann. 11th edition. E. and S. Livingstone, Ltd., pp. 905, 40 illustrations. 31 X-ray plates. 37s. 6d.

It is not easy to review this book, for it is not the sort of volume that one can read through on a Sunday afternoon, writing a short and illuminating criticism in the few minutes before Sunday dinner. I do not pretend to have read this book right through, but I have used it for the last six months as an aid to my efforts at learning clinical medicine. It is from this point of view that I write the review.

This is a useful book, for it not only has much of the information in it that a student is looking for, but it is written and edited and produced extremely well. It is readable, and never dull, involved or repetitive. It covers the subject (in most sections) sufficiently fully to be interesting. There are shorter textbooks than this, but they

verge on being cram books. This is not a cram book.

However, even in this book there are some sections which are over compressed. Perhaps it is no longer profitable for a general textbook, to try to include a section on diseases of infants. Professor Ellis has been allotted twenty pages only. The seventy pages on psychological medicine are clear and concise, but is this section a substitute for reading one of the shorter textbooks on psychiatry?

This argument might be carried further—is the section on respiratory diseases a substitute for reading a book on chests, the section on hearts an adequate alternative to reading a book on cardiovascular diseases? The argument could be developed that the adequate textbook of general medicine can no longer be produced in a manageable size, and that the student's best hope is to read through the shelves of a library. However most students certainly have not the time to read at large on every subject, and the excellence of this textbook is that it can be used to fill in the gaps in wider reading without the uneasy feeling that one is cram patching. G.E.

**Into General Practice by J. G. Thwaites, M.B., B.S. Heinemann. 12s. 6d. Published Nov., 1954.**

Having read so much to the contrary, it is refreshing to find a book where General Practice is genuinely regarded as a desirable branch of medicine to enter.

Dr. Thwaites begins his book with an account of General Practice and the General Practitioner. He deplores the modern segregation of the G.P. and the consultant, and maintains that General Practice experience is the best apprenticeship for those who desire to specialise; the G.P. he says is in fact a specialist in diagnosis. One often hears "Oh, he's only a G.P." It would be more logical to say of the specialist "he is only a radiologist!"

In subsequent chapters the Medical Practices Committee, the Regional Medical Officer and other machinations of the Welfare State are introduced in rapid succession, and although no attempt is made to produce a detailed summary of Health Service regulations some of the more important features of bureaucratic medicine are outlined for the guidance of the novice.

I much liked the chapter on the General Practitioner's Work. This is done partly in tabulated form and gives insight into the variety of cases which a practitioner may find in his surgery on a given morning. There is a wealth of anecdotes which I found rather lacking in other parts of the book. One of the little gems concerns the story of a young man with bilateral renal tuberculosis. On hearing the dubious prognosis his wife and family decided to take him to London to see a spiritualist who performed bloodless operations by way of a long-dead German surgeon.

There follow discourses on Practice Organisation, Professional Relationships and Medical Ethics. In the last mentioned chapter Dr. Thwaites deals with a miscellany of topics which range from the size of type which doctors should use on their brass door-plates to legal agreements like 'restrictive covenants' whereby an assistant or partner may not practice independently of his partners in the same locality. J. D. P.



## Whisper Ninety-nine

Every Doctor feels quite passionately about what he hears down his stethoscope; and if a colleague hears something more, or different, the fellow must be wrong; probably got fluff in his ear-pieces. It is, of course, a commonplace of the medical schools that students' stethoscopes transmit sounds quite other than those heard by their great white chiefs; and it is equally recognised that no doctor can hear as well with somebody else's stethoscope as he can with his own. In this often lifelong partnership, the instrument develops a one-man-doglike devotion to its owner; or perhaps it is the other way about. Its form has changed since René Laennec (as those old enough to have read "Rewards and Fairies" will remember) devised his little wooden trumpets and heard for the first time . . . .

*We apologise for leaving this subject in the air, so to speak; but space is limited. You can read the whole delightful essay, however—and half-a-dozen others equally light-hearted and informative—in the collected "Prosings of Podalirius". Send a p.c. for your copy to the address below.*

## VITAMINS LIMITED

DEPT. (G.1)

Upper Mall, London, W.6

Makers of

BEMAX VITAVEL SYRUP VITASPRIN

BECOVITE BEFORTISS PREGNAVITE COMPLEVITE

FERTILO CREAM CHOLINVEL ETC.

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LIX.

APRIL 1955

No. 4

## COLOUR

IN this issue, we are publishing, for the first time in the history of the *Journal*, some colour plates. That we have been able to do so, is due to the generosity of Dr. Gibson, since the cost of colour printing verges on the astronomical. Town life is extraordinarily drab, hospital life being no exception; and one feels that any attempt to introduce a little colour into such surroundings is fully justified. Here, the word "colour" is not being used in its wider sense, to denote variety and interest in life, of which, surely, there must be plenty at Bart's; but in its strictly artistic sense. As the dictionary somewhat clumsily puts it:—"That in respect of which bodies have a different appearance to the eye independently of their form."

Recently, the author went on a visit to Norway. His companions, who had not previously been to Norway, remarked on the lack of colour in the country. There was only the white of the snow and the black of the forests. However, when they returned to the uniform griminess of London, with its dull grey sky, they began to remember the bright sun, the clear blue sky, the sparkle of the fresh snow, and the colourful costumes of Norway.

It seems that dust and dirt accentuate any lack of colour. One can scarcely imagine the transformation if London were suddenly to be scrubbed clean overnight. Some rough idea may be obtained by contrasting the outside and inside of Bart's. The wards, although they contain no more colour than the exterior, create a much stronger impression of colour as a result of their freshness and cleanliness. In the washed walls and polished floors, shades are seen which would be completely masked by dirt. Even the

uniform of the nurses, which is somewhat drab, to say the least, is given colour by its immaculate starching.

It would be most excellent if Bart's were to take the lead in imparting a little more colour to London. Were it not for the expense, a thorough scrubbing down similar to that recently carried out on the Senate House in Cambridge, would transform the outside stonework which is, presumably, a mellowed yellow under its coating of grime. A few coats of bright paint on the seats in the Square would do no harm. And while repairs are going on near the Student's Cloakroom, would it not be possible to pick out in gold the letters over the entrance—"Whatsoever thy hand findeth to do, do it with thy might"? Some windows would benefit from being cleaned more frequently. Even in summer, the Pathology Laboratory is but weakly illumined by a few rays of sun, the sole survivors of a perilous journey through dense layers of dirt.

Finally, perhaps a little more colour could be foisted on the doctors and students. They look peculiarly anaemic in their uniform white coats. Perhaps they might acquire some colour on the lines of the purple epaulettes worn by the Physiotherapists. Several possibilities spring to mind—surgeons would naturally wear scarlet. For physicians, possibly blue and pink stripes would be apposite, signifying the all-seeing eye and the all-palpating finger. The epaulettes of the Skin Department would be of a rosaceous hue, and, of course, black would be for Eyes.

Who knows? If matters progressed, Bart's might be known in twenty years time as the most colourful Hospital in the British Empire.

### Appointments

G. R. Kinross Wright has been elected to the Assistant Editorship.

J. Chalstrey has been elected to the Assistant Managership.

### 12th Decennial Club (1925-35)

The Annual Dinner of the 12th Decennial Club will be held at the Naval and Military Club, Piccadilly, on Friday, May 6, at 7.15 for 8 p.m. Will any member who does not receive a card, or any eligible non-member who would like to attend, please communicate with W. D. Coltart at 58 Harley House, N.W.1.

### Our Roving Correspondent writes:—

“Bumping Races on the Tideway? It can't be done. The river's too wide. What about the tugs? How can they be started?” This was the chorus which greeted the suggestion put forward by James Hadfield, Captain of Boats at St. Thomas' and son of Professor Hadfield. In spite of this, the answer, or an attempt at an answer, will be seen in May when the United Hospitals Rowing Club have announced their intention of holding Bumping Races on the Tideway for the Hospitals and any crews from the University of London who care to enter. The Hospitals Cup will go to the Hospital ending head or highest, after three nights racing. These races will provide keen competition for all who enter for three nights, and what is more, crews will be racing amongst crews of approximately their own standard. They should encourage more crews to take part, and even in lean years clubs will endeavour to help crews on the river.

The starting order is bound to be a matter for conjecture, and the significance of the first year's results may be difficult to assess.

Nevertheless, Bumping races provide a better spectacle than almost any other form of rowing, and a lot of the atmosphere is created by spectators with their whistles, rattles, guns, alarms and other excursions. So your vociferous support on the towpath is sought on May 18, 19, and 20.

It is believed that a certain Rigger Club with whom Bart's has had more than the usual number of fixtures, intends to see that Bart's Rigger Club does not attain the same ascendancy in the Summer Races as it has until recently enjoyed at the Winter Regatta.

### The Visick Memorial

The photograph on the opposite page illustrates the Visick Memorial, which consists of three memorial panels decorated with figures of men and women famous in the history of medicine. It was dedicated on October 11 of last year to the medical profession, and in particular to Mr. Visick, who died in 1949.

Mr. Arthur Hedley Clarence Visick gained an entrance scholarship to St. Bartholomew's Hospital in 1915. He won many prizes and distinctions whilst at Bart's, including the Foster Anatomy Prize, the Willett Operating Medal, and the Brackenbury Prize. Part of his education was carried out in Michigan, and among his earlier appointments he was assistant surgeon and instructor in orthopaedic surgery at the University of Michigan.

Mr. Visick went to York in 1926. He was appointed an honorary surgeon to the County Hospital, where he specialised in the surgery of the stomach and of the thyroid. He held many professional appointments in Yorkshire. He was on the Surgical Specialist Panel for the Leeds Regional Hospital Board, and a member of the York 'A' and Tadcaster Hospital Management Committee, as well as chairman of the County Hospital House Committee. In 1947, Mr. Visick was awarded the Hunterian Professorship of the Royal College of Surgeons, and in 1948 he received the Bishop Harman prize for his research work in connection with the treatment of gastric and duodenal ulcers.

After his death, a memorial fund was opened, and when the total exceeded the amount necessary for the panels, the surplus was used to provide annual prizes for the best surgical nurses at the York City and York County Hospitals.

The three wooden panels are erected on the screen in the South Choir aisle of the Minister. The design was conceived by the

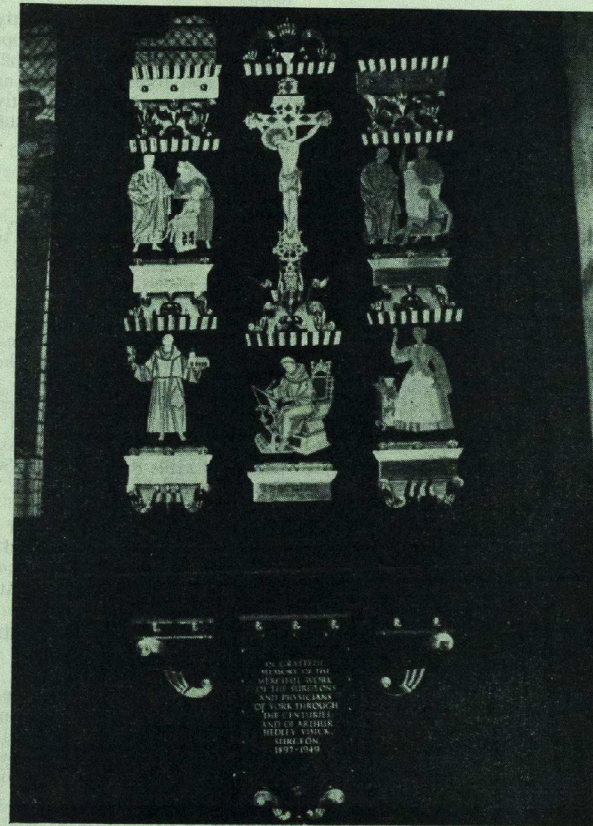
Dean of York (Dr. E. Milner-White), and the work executed by Mr. H. J. Stammers, a York artist in stained glass. The central panel has a figure of Christ on the cross, and St. Peter, St. John and Florence Nightingale are depicted on the others. The figures are actually made of gold leaf, and are touched in with colour.

The inscription reads:—“In grateful memory of the merciful work of the surgeons and physicians of York through the centuries, and of Arthur Hadley Visick, surgeon, 1897-1949.”

### Wessex Rahere Club

The Spring Dinner of the above Club will take place at the Royal Clarence Hotel, Exeter, on Saturday April 30th. It is hoped that Dr. E. B. Strauss will be present as Guest of Honour.

Membership of the Club is open to all Bart's men practising in the West Country. Further details will be circulated to Members and to any other Bart's men who are interested and who will get in touch with the Hon. Secretary, Mr. A. Daunt Bateman of 11 The Circus, Bath.



*The Visick Memorial.*

(by courtesy of the Yorkshire Evening Press).

## LETTERS TO THE EDITOR

**The QARANC Advertisement**

Dear Sir,

Is this the way you put on a sling? I hope not! I also hope that some Bart's nurse will answer the call to nurse in the service of the Queen and then she can show this Army Sister how to do it. Clearly, they have had no proper instruction since I left the Army in 1946!

Yours faithfully,  
SEYMOUR PHILPS.

**Visits v. Attendances**

Sir,

In Mr. Bergel's "A week with a London G.P." (March *Journal*), we find 168 visits against 37 attendances. If visits have their usual meaning of visits to patients in their homes, and attendances denote attendances at the surgery, it would appear that these figures have been transposed in error. As they stand, they give an entirely false picture of work in G.P.

For example, it would be an extraordinary practice in which one-third of the attendances at surgery consisted of women requiring contraceptive advice.

I believe the A:V ratio to be in the region of 3:1, and I agree that November would be an average month. Mr. Bergel's figures produce an A:V ratio of 0.22:1, which simply doesn't happen.

Yours faithfully,  
B. BURNS.

**Bleeding Piles**

Dear Sir,

Whilst sorting out a long-forgotten box of papers today, I came across the following, addressed to my late father, and dated April 11, 1928:—

Dear Mr. M—,

I am very sorry to hear of your trouble and hope to hear soon that you are in a fair way of recovery—I have heard of duo-denal ulcer and I think it is connected with "Piles." I have just had a touch of bleeding Piles owing to eating barley with soup—I asked our cook to leave it in the soup. (I had asked for barley water with the soup) and she intended to throw the barley itself away—but I told her not to and eating the barley for about a week caused two of the

family to get "bleeding piles"—the doctor said as two of us got it at the same time—it must have been the barley but we are alright again now. I never had "bleeding piles" before).

With every best wish for your speedy recovery.

Yours sincerely,  
Thomas M—

P.S. Is not Barley left in Scots Broth? I never heard of its being a Heating food before.

I reproduce the letter exactly as it was written. My father had been operated upon for a duodenal ulcer, but thanks to the wisdom and foresight of the nursing staff, was not dosed with post-operative barley so was spared the indignity of suffering from "b— piles"! I thought this might amuse you.

Yours faithfully,  
SHEILA M.  
(ex St. B.H. "Nursery"  
or "Nunnery")

**Professor Christie**

Dear Sir,

Being one of the many people—nurses and students alike—who have worked on either Starmore or Garrod wards; I have great respect and admiration for Professor Christie. Much was my pleasure, when opening the Montreal Gazette to see across the second page "McGill, R.V.H. name Scot to 3 top Posts": and to discover that "The Prof" has been so highly appointed.

As he is so much part of "Bart's," I thought you might be interested with the enclosed cutting showing how he will be acclaimed on this side of the Atlantic.

Yours faithfully,  
THERESA M. BENDIXSON.

A brilliant Scottish medical scientist and teacher, Dr. Ronald V. Christie, is returning to Montreal to accept three senior positions at the Royal Victoria Hospital and McGill University, it was announced yesterday.

Dr. Christie has been appointed to the posts of physician-in-chief of the hospital, succeeding Dr. Walter de M. Scriyer. He also becomes professor of medicine and chairman of the McGill department of medicine, succeeding Dr. J. S. L. Browne.

## MISS VAUGHAN

MARGARET VAUGHAN, a devoted servant of St. Bartholomew's Hospital, died in Luke Ward on January 14, 1955, at the age of 62. She had worked in the Hospital or the College, with one intermission, for more than thirty years and so was a familiar figure to staff and students in the numerous capacities in which she served. She was the elder daughter of the Rev. John Vaughan, rector of Droxford in Hampshire, but when her father became a Canon of Winchester the family moved to a lovely house in the Cathedral Close. She was sensitive to her surroundings, and some of her prejudices derived from this close-up view of English ecclesiasticism; she also developed a feeling for many of the gracious things of life such as are fostered in the society of a Cathedral City and of a great Public School. She had no thought of a career in medical or scientific circles, but it so happened that during the first World War she undertook work as amateur assistant to an American doctor in a small laboratory in Winchester. Her natural competence enabled her to acquire some proficiency in this unexpected sphere, and when, in 1923, the late Professor George Gask was seeking a technician to help in a special investigation in the new Dunn Laboratory, she applied for the post. She was engaged at sight, the term of her appointment being limited to six weeks, a period thought to be ample for the work planned on the histology of "chronic mastitis." In that short time, however, Margaret Vaughan, or MV as she soon came to be known, had proved that she was indispensable. It was unthinkable that the work of the Dunn Lab. could be carried on without her. So weeks became months and months years, while MV became an important, though unobtrusive, factor in the success of the first Surgical Professorial Unit established in London. She possessed a remarkable faculty for acquiring skill in any new task that she was asked to undertake, so that in addition to doing all the ordinary routine investigations she became an expert histologist and photographer, not only of microscopic sections, but also of clinical

conditions, being thus the forerunner of the present Photographic Department. With Sir Thomas Dunhill as Assistant Director of the Surgical Unit the treatment of patients with toxic goitre was an important feature of the work, and when there was a demand for the measurement of basal metabolic rates it was MV who soon became the only technician able to produce consistent results in these difficult estimations. She was characteristically clever in managing both the machine and the patient. Her versatility was further shown by her ability to combine, after two or three years, private secretarial work with her hospital duties. For more than fourteen years she led a double life, each day being nominally divided into two half-days in which she functioned first as technician, then as secretary; but in fact she did much more than a full day's work in her dual capacity.

During the early part of the second World War MV remained in London working at the Hospital, but in 1940, after an attack of pneumonia, she was found to be suffering from an active pulmonary tuberculosis. She was sent from St. Bartholomew's to Papworth Sanatorium under Sir Pendril Varrier-Jones, and so was recovering there when he suddenly died early in 1941. "As you may imagine," she wrote on February 2, "this backwater has been shaken to its foundations by VJ's death. There was a lying-in-state this morning in the hall of the Hall, with local Home Guards with arms reversed standing at the four corners of the coffin. It was really rather impressive; there was a short service and everyone, male and female, wept unashamed (I don't think they were crocodile tears) and all the villagers came and brought bunches of flowers, and then we went away. It only lasted about ten minutes and was a tribute that I think VJ would have liked." The day before his death Sir Pendril had told MV that she could begin to do some work, and soon she was again employed, helping with tuberculosis research. The lesion in her lung became quiescent, but was followed by a progressive fibrosis and bronchiectasis, so that she never again regained full health. She left Papworth in 1944 and returned to St. Bartholomew's where she presently took charge of the stu-

dents' library in Charterhouse Square, living in a flat nearby. Her duties were within her reduced capacity, but as the years passed she became progressively more limited in her range, until in 1954 she was made a pensioner of the College with nominal duties. Her last years were thus a long struggle with ill-health, though she accepted her trials with courage and humour—a shining example to her many friends of how to bear adversity with uncomplaining dignity.

MV was one of those undemanding people who are willing to give their best services to

an institution for a modest reward, although, if they had had ambition, they could have made a career in a more conspicuous position. For, as her friends recognised, she had remarkable intelligence, loyalty, skill and powers of organisation. Her tongue was sometimes sharply critical and her prejudices strong, but warm humanity tempered her acerbities which could always be turned off with a laugh, so that she gained the warm regard of everyone with whom she came in contact.

St. D.

---

## LOST OPPORTUNITIES

by J. D. PARKER.

She was the girl that I adored,  
A symphony in starch;  
I saw her first in Lucas ward,  
One wintry day in March.  
I thought it best to watch and wait,  
And didn't ask her for a date.

One starlit night the scene was set—  
I found her standing near;  
Perhaps she'd like a cigarette?—  
I murmured in her ear.  
She turned and whispered softly back:  
"You'll waken all the patients, Jack."

I looked for her in vain next day,  
Until I met her friend  
Who told me she had gone away  
For duties at Hill End.  
Perhaps I should have been more bold—  
But then I'm only nine years old.

## CUTTING FOR STONE

by A. W. BADENOCH.

STONE in the bladder is a comparatively rare disease in this country, in Western Europe, and in North America, and when it occurs is almost always secondary to some obstructive condition. Throughout the ages, however, and right up to the twentieth century, it was a common and painful complaint in children, especially in the poorer classes. It still quite commonly occurs in children in China and India and there seems little doubt that it is then due to a dietetic deficiency. It has been suggested that there is too small a quantity of soluble calcium in the food, and that the lowered incidence in the more civilised countries followed an increased ingestion of milk and a higher protein-carbohydrate ratio in the diet both of the mother and of the child. According to Joly (1929), probably the earliest known vesical calculus is that which was discovered by Elliot Smith in the grave of a pre-historic Egyptian at El Amara, and it was calculated that it had formed about 7,000 years ago. Very few stones were found in examination of a large number of mummies, so it may not have been a common condition in ancient Egypt. On the other hand, only the comparatively wealthy could afford to be embalmed, and they probably enjoyed a fairly liberal diet.

The origin of the surgical treatment of Stone in the Bladder is hidden in the past. It is thought that lithotomy was performed by Hindu Surgeons 2000 B.C. (Rose 1947) and by Egyptians about 1500 B.C. The Hindus were often quite expert, and in the fifth Century writings of Susruta (quoted by Joly) 121 surgical instruments were described. These ancient surgeons were careful and clean, and not only cut for stone through the perineum, but performed suprapubic lithotomy, about the beginning of the Christian Era.

It is interesting that little or no change should be made in the treatment of a common and painful disease for thousands of years, since there were really no dramatic alterations almost until the Listerian Era

of Surgery. It may well be that this was largely due to the Hippocratic Oath which forbade cutting for stone. Although Nitiss (1939) suggested that it was castration which was really forbidden in the Hippocratic Oath; up to the middle ages, the leaders in medicine and surgery accepted the usual interpretation of the Oath, and were against any member of the profession performing a lithotomy. Moorish and Moslem physicians were also against perineal lithotomy on religious grounds and even went so far as to say that the eye of the true believer could not rest without sin on the part exposed for the operation. By an edict of Pope Innocent III, in 1215, in which bloodshed was said to be incompatible with the divine mission, the antagonistic attitude to surgery was almost universal.

Perhaps it is little wonder that it was left in the hands of barbers and itinerant mountebanks. Death frequently occurred on the day of the operation from bleeding. Pelvic cellulitis with spreading infection from extravasation took a further toll within the first ten days and if the patient survived, the resulting fistula "made life unbearable and unbecoming for a free man." What then was the nature of this operation? According to Paul of Aegina, Celsus (A.D.30) gives one of the earliest descriptions. It is probable that he himself never performed the operation but merely described the method employed in Alexandria at that time as the surgeons in this city had become famous for their method. Celsus forbade the operation except if every other method should fail. He advised that it should only be performed on children between the ages of nine and fourteen and then only in the spring time. Some pre-operative treatment was to be given—the patient was kept on a sparse diet beforehand and just before the operation, was made to walk about so that the stone might come to lie in the neck of the bladder. "A strong and experienced person sitting on a high seat is to take the patient and hold him secure, his buttocks being placed on the assistant's

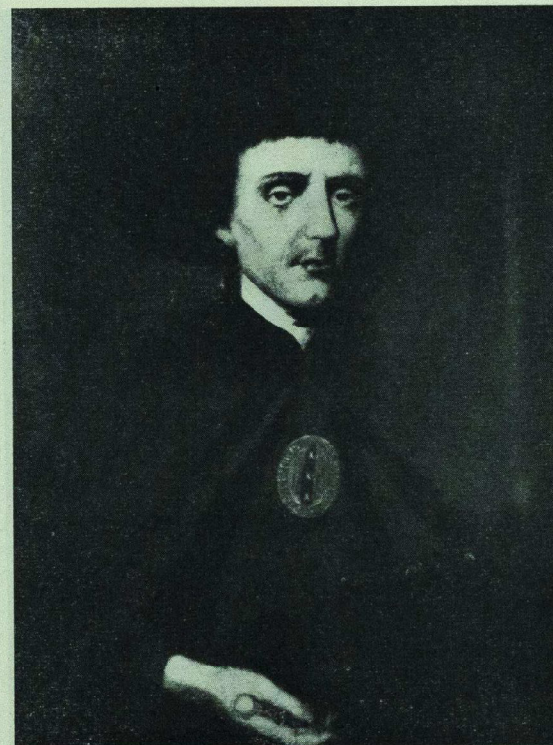
knee, his legs being drawn up, and his hands placed on theirs and held there." If the patient were strong, two other assistants one on each side, helped to hold him whilst two further assistants were required to be at hand in case of necessity. The surgeon 'having pared his nails' introduced the index and middle fingers into the rectum, the stone was hooked or pressed down and made to bulge on the perineum. A curved incision was then made over the bulge until the bladder was reached and opened, and perhaps with an added incision at right angles to the first, the opening was dilated to a size just larger than the stone. If the latter was small, it was sometimes pushed down and extracted digitally but usually a hook or crotchet was necessary to effect this. Bleeding of course, always occurred and if it did not readily stop the patient was made to sit in a bath formed of a strong solution of vinegar and salt. No mention is made of what happened to the lithotomist should the patient bleed to death, but no doubt more often than not he would have already made a very hurried departure. At any rate, it was usual for him to proceed on his journey within 48 hours of the operation and leave the poor patient to recover as best he might. If inflammation came on after the operation, Clysters (bowel washouts) were recommended, together with warm baths, venesection and the application of cloths dipped in oil to the wound. Ominous symptoms after the operation were violent pain in the part—probably from extravasation and pelvic cellulitis—pain just below the navel—probably peritonitis—coldness of the extremities, prostration of strength, loss of appetite and at last singultus (persistent hiccup) and involuntary discharges from the bowels. This operation of Celsus was known as the Apparatus Minor since it only required two instruments—a knife and a hook. In England, it was always known as "cutting on the Grippe" i.e. on the grasped stone, and was the only operation to be practised for hundreds, if not thousands, of years.

Some little attempt was made at improvement by more educated members of the community and Benedict at the Monastery of Monte Cassino developed a reputation for stone cutting (Rose 1947) about 1000 A.D. Henry II of Bavaria, visiting the Monastery, was put to sleep and awakened to find the stone in his hand. This "miracle" is depicted in a wood carving on the pulpit

of the cathedral at Bamberg. The Emperor, naked but for his crown, is shown supported on a high pillow and the operator having made a cut with his right hand is seen to be extracting the stone with his left.

In the sixteenth century, some changes occurred and the incision came to be made on to a grooved director or catheter. This guided the knife into the bladder with rather less damage to the surrounding parts. The early or median approach was performed through an incision in the mid line and was popularised by a Neapolitan surgeon, Marianus Sanctus Bartolinis. It was suitable for employment in patients of all ages. Frère Jacques (1651-1716) apparently quite fortuitously discovered the lateral approach which ultimately became the least dangerous of all the lithotomies because of diminished perineal bleeding. Both the median and lateral incisions were done on to a staff and required more instruments than the Celsus operation. Because of this they were called the Major Apparatus, or, in this country, Cutting on the Staff. Frère Jacques was the best known of all the itinerant lithotomists of the seventeenth century. He was at first a labourer, but later became a soldier and went to Italy. Whilst there, he learnt the operation of cutting for stone from an Italian specialist and acquired some skill and a very considerable reputation in performing it. He had probably very little clerical status but assumed the title of Frère Jacques (Douglas, 1726). Apparently, quite accidentally, as at first he had no anatomical knowledge, he found that lateral lithotomy gave rise to fewer complications. In his original operation, he made the incision well to the left of the mid line and by opening into the ischio-rectal fossa had an improved access to the bladder. The rectum was less often injured as also were the corpora cavernosa and the internal pubic vessels. A curved staff without a groove was passed along the urethra into the bladder, a two-edged triangular knife was then inserted into the perineum near the ischial tuberosity and pushed sharply in until it went through the posterior wall of the bladder and met the staff.

These operations were all done in public. Having removed the stone, the operator obtained the signature or mark, from some admiring witnesses, on a certificate to say he had obtained a cure. Like all other itinerant lithotomists he moved on to the next village before complications occurred. Later, he



*Frère Jaques.*

learnt some anatomy and claimed that he entered the bladder, still from the side, by dividing only the neck and prostate: "this incision being finished, he thrust his finger through the wound into the bladder to find out the stone and having observed where it lay he introduced an instrument to dilate the wound. Upon this dilator, which he calls his conductor, he thrust in a pair of forceps and laid hold of the stone and pulled it out." (Douglas, 1726).

In the course of his travels, he visited Holland and the Burghers of Amsterdam were so impressed by his operation that they presented him with a portrait of himself, and a set of bladder sounds made of gold. Frère

Jacques, according to his adulators, lived a life of simplicity and so had the golden sounds melted down and distributed the proceeds to the poor. He had a sure and steady hand and was of intrepid and undaunted courage and resolution, all of which virtues he required to offset his lack of anatomical knowledge.

Despite the fact that Frère Jacques was the most renowned of all the lithotomists at that time, his operation was a bad one and Monsieur Mery as quoted by Douglas, having fully investigated his claims, thought little of them. Of sixty-three patients operated on by him in the Hotel Dieu and Charite in the



*William Cheseldon*

spring of 1698, twenty-five died soon after the operation, thirteen left the hospital but in some of these the wounds later broke down, and the other twenty-five remained in hospital, some with incontinence of urine and some with fistula. This did not help his reputation and by many he was thought to be an imposter, a liar and showman, without claim to be considered either cleric or surgeon.

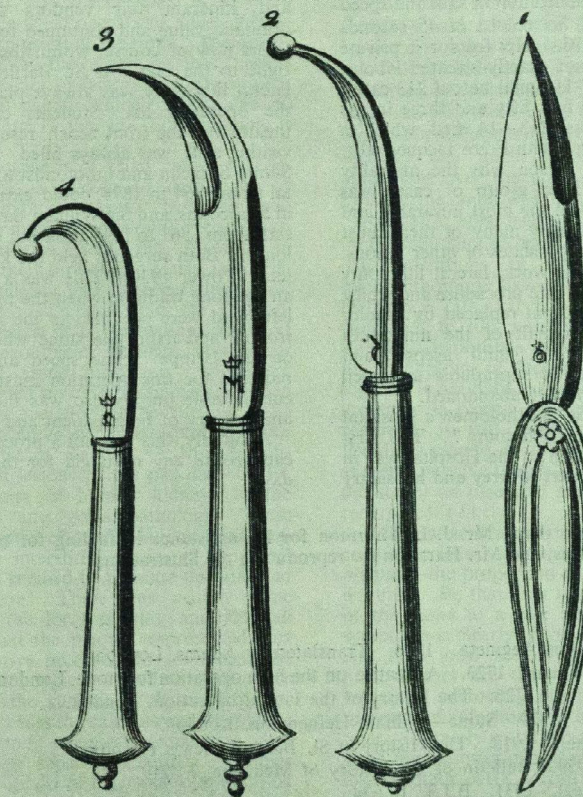
The operation of Frère Jacques however, was improved upon by Johannes Jacobus Rau (1668-1719) who was Professor of Anatomy, Medicine and Surgery at the University of Leyden. Rau was born in Baden and amongst other claims to fame, was surgeon on the ship which brought William to England. He dissected the bodies

of some of those who had died in Amsterdam soon after the operation, and saw that, in these cases, Jacques had entered the bladder at too high a level and had gone through the posterior wall instead of through the prostate and vesical neck. Rau therefore added a groove to the convex side of the catheter director and by this means his knife entering the groove was always guided to cut the bladder neck and prostate with certainty.

According to Douglas, Dr. Albinus who was a pupil of Rau's described the latter method to Cheseldon, although others claim that Rau kept this advance secret and that Cheseldon had to find it out for himself. Whichever is correct, there is no doubt that Cheseldon became the most skilful of all the lithotomists and was recognised as such throughout

Europe. Taking into account only such cases as had been operated on in hospital, and therefore witnessed, he produced mortality figures which had not previously been thought possible, let alone achieved. William Cheseldon (1688-1752) was apprenticed at an early date to James Ferne who was lithotomist and principal Surgeon to St. Thomas' Hospital, and succeeded his chief in 1719.

At first he tried out the high operation or suprapubic lithotomy, but quite soon reverted to the perineal approach. Dis-satisfied with Rau's operation as described, he evolved a technique of his own. Although rather similar to that of Rau, the incision was made laterally "between the musculus accelerator urinae and erector penis and by the side of the intestinum rectum." This avoided the



*Knives used in lithotomy by Rosset, illustrated by Cheseldon.*



vascular bulb. The staff in the urethra was felt and cut upon beyond the corpora cavernosa urethrae into the prostate, cutting from below upwards to avoid wounding the gut, which was held out of the way with a finger. He then passed a gorget into the bladder and followed this with forceps which felt, seized, and withdrew the stone. Blood vessels were tied by the help of a crooked needle and the only dressing was a little lint smeared with blood so that it should not stick too long on the wound (D'Arcy Power 1931). Cheseldon had perfected the operation. Few approached him in skill and speed and no one beat his record of 45 seconds from start to finish. His fee for a private case was £500—not exactly sweated labour.

In St. Thomas' Hospital he cut 213 cases, three died in the first fifty and three in the second; of the last 113—14 died, which is some 9% compared with Frère Jacques 40% of deaths. The reason why the mortality increased in the later group of cases, was that he tackled even the most miserable and aged, and undoubtedly many of them must have had enlarged prostates or other lesions. As the result of his work, lateral lithotomy became a relatively safe procedure and whilst it was to a large extent replaced by litholoxypax in the latter half of the nineteenth Century, it was not until asepsis and anaesthesia made the suprapubic approach safe, that it was finally abandoned.

And what of St. Bartholomew's Hospital in this history of lithotomy? The first lithotomist appointed to the Hospital was in 1612. He was Robert Murrey and his salary

was £6 13s. 4d. per annum. By 1663 the salary for this office was raised to £15 per annum (Moore 1918). In 1683 Olive Adams was Sister in the cutting ward, which was reserved for lithotomy cases. It can be seen that St. Bartholomew's at that time had a Genito-Urinary Department. In 1712 John Bamber—a barber surgeon—was the last to be appointed lithotomist to the hospital, and subsequently the office was given to such of the surgeons or assistant surgeons who wanted it. Bamber, incidentally, was the first to perform a lateral lithotomy in England. The operation of mountebanks and itinerant fair vendors retained its dramatic value and continued to draw spectators now of course, within the profession, right to the end. At St. Bartholomew's, a lateral lithotomy was always placed first on the operating list. Students crowded the theatre and the front bench, reserved for the visiting staff, was always filled. Sir Thomas Smith, Surgeon and lithotomist to the Hospital from 1864 to 1898, could extract a stone in 59 seconds, and Sir William Savory, on the staff from 1861 to 1891, took but two seconds longer. Both surgeons held the knife in their teeth (Power 1930). This was a survival of an age-long tradition when the fingers of the left hand were occupied in the rectum controlling and fixing the stone when "cutting on the Grippe." The speed and dexterity required for this operation must have been considerable but so also was the resolution and bravery of both patient and surgeon.

Assuredly, this was not a procedure which can arouse any nostalgia for the good old days.

I would like to thank Mr. J. L. Thornton for his assistance in finding for me so many interesting references, and Mr. Harrison for reproducing the illustrations.

#### References

- Celsus in Paulus Aegineta. 1846. Translated by Adams, London.  
 Cheseldon, William. 1723. A treatise on the high operation for stone, London.  
 Douglas, James. 1726. The history of the lateral operation, London.  
 Joly J. Swift. 1929. Stone—William Heinemann, London.  
 Moore, Norman. 1918. The History of St. Bartholomew's Hospital.  
 Nittis, S. 1939. Bulletin of the history of Medicine, 7: 719.  
 D'Arcy (Power). 1931. B.J.S., 18: 24.  
 Power, D'Arcy. 1930. B.J.S., 18: 1.  
 Rose, A. D. 1947. Univ. Coll. Hospital Magazine, 32: 18.

## THE TREATMENT OF RENAL CALCULUS BY PARTIAL NEPHRECTOMY.

By RICHARD POYNTZ-WRIGHT

THE operation of partial Nephrectomy has, as its object, the prevention of recurrence of renal calculi. This recurrence is so often seen after the usual operations which merely involve the removal of the stone. The operation is based on the hypothesis that there is some local factor or factors concerned in the formation of calculi which, clearly, can no longer operate if the site of formation is removed.

The pathogenesis of renal calculi, a condition which is known to date back to Ancient Egyptian times, has remained shrouded in mystery until quite recent days. Various theories were put forward to account for their formation—stasis, infection, vitamin deficiency and hyperparathyroidism have all been suggested—but the evidence chiefly consisted of a correlation, which at best was incomplete, between these conditions and stone formation. Moreover, there was often no clear distinction between the cause and the effect of the calculus. The first really positive evidence regarding aetiology was that of Randall<sup>1,2</sup>, who demonstrated small lesions in the papillae of 20% of 1,100 pairs of human kidneys in the absence of any gross pathology. These lesions consisted of small plaques of calcium salts in the interstitial tissues of the renal papilla, and seemed to be quite unconnected with infection. There was usually some damage to the local tubules, and Randall suggested that the plaques represented part of a reparative process. In some cases he showed that typical small calculi were attached to the surface of these plaques—and in some cases the calculus and the plaque were of different chemical composition, thus stressing their separate identities. Further findings in support of his conclusion that this demonstrated a method of calculus formation were, first, that on X-ray most small calculi are found in the region of the papillae, and also that many calculi found loose in the pelvis or passed naturally have one smooth

depressed facet which could well be the site of previous mural attachment.

This work has since been confirmed by Rosenow and Anderson<sup>3</sup> has followed it up by demonstrating the presence of microscopic calculi in all kidneys in a series of 170, which contained both diseased and normal ones. He suggested that these might become Randall's macroscopic plaques under certain conditions; possibly this might involve the loss of epithelium over the area so that the salts in the urine could wash over it.

Randall's work has an important bearing on the treatment of renal calculus by surgery. The operations of pyelolithotomy and nephrolithotomy have always had a high recurrence rate, varying in different series from 15% to 30%; and if one subscribes to Randall's hypothesis that calculi are merely the "symptoms of deeper underlying pathology" it is not hard to see the reason. When the stone is passed naturally, or artificially removed, it will leave behind either a Randall's plaque devoid of epithelium or (if as seems possible the plaque comes away with the stone) an ulcerated area; in either case recurrence is likely.

It is now generally agreed that some renal calculi, at least, are formed from Randall's plaques—the proportion of the total is more doubtful. Be that as it may, the maturation of the stone to a size where it can cause symptoms is clearly of the first importance—and here local factors must play a part. Such factors are the shape of the calyx, especially narrowing of the neck, and the presence of infection which may be hard to treat. Certainly gravity seems to be involved, since the majority of stones are found in the lowest minor calyx. Thus calculi would be likely to mature in one individual calyx where the local factors for formation and maturation were suitable, and any recurrent ones would probably appear in the same place.

It follows from this that the operation of

partial nephrectomy, which involves removal of the offending calyx or calyces as well as the stone itself, should have a lower recurrence rate than more conservative measures; and this seems to be borne out in practice. Hamilton-Stewart<sup>4</sup> presents a series of 101 cases with two operative deaths (one from pulmonary embolus and one from clot retention of the bladder), and recurrence in six out of 87 cases which had been followed up for periods varying from two to 13 years after operation. All these recurrences took place in a lower minor calyx after another adjacent one had been removed, and could in his opinion have been avoided by removing the whole of the lower major calyx; though they may have been related to the presence of blood clot in the kidney or persistence of infection. In any case, the low recurrence rate seems to justify the rationale of the operation—certainly it represents an advance on the attitude of the Surgeon of the Middle Ages who said "I have removed the stone: it is up to God to cure the patient."

#### Case History.

A woman aged 58, and engaged in part time domestic service was admitted to Bart's on 4th December, 1954. She was complaining of pain in the back, chiefly on the right side: the pain was dull, aching and continuous. Three weeks previously, she had had a sudden attack of pain in the right loin which shot down to the groin—she described this pain as worse than having children. This was eased by an injection and ever since then she had been suffering from the pain in her back.

She had frequency with a D:N ratio of 10:2 which had come on since the pain started: she also complained of a sense of urgency and a burning pain on micturition. She had had three attacks of pleurisy, the most recent being two years ago, and ever since then her appetite had been poor, she had been getting thinner, and she had been short of breath on exertion.

On examination, the patient was nervous but co-operative, and looked healthy. There was tenderness over the abdomen, which was hard to localise as the patient started to writhe and exclaim at the first touch, but appeared to be maximal in the right loin: there was also definite tenderness at the right

renal angle, and a little on the left. The tongue was coated, and chest movement was poor, but otherwise there were no abnormal physical signs. The blood pressure was 140/80 and the pulse regular at 68/min.

#### Investigations.

The haemoglobin was 86%, white blood cells 8,200/cu.mm, and the ESR 5 mm per hour. The blood urea was 37 mgms/100 c.c. A catheter specimen of urine showed small numbers of white blood cells and epithelial cells but no red blood cells or casts, and culture was sterile. X-Ray revealed a calculus in the inferior calyx of the right kidney; an IVP was done and showed good kidney function on both sides.

#### Operation.

Operation was carried out on December 14th, sulphadimidine having been given in doses of 1 gm. 6 hourly the previous day. An X-Ray just before the operation confirmed that the stone was still in the same position. A loin incision was made and the 12th rib resected. The kidney was delivered into the wound, and a Crafoord's clamp placed on the renal vessels; the stone was felt at the lower pole, and a wedge-shaped portion of the lower pole was excised; thus removing the calyx containing the stone. The calyx was carefully closed with fine catgut, and the kidney flaps sewn together with catgut stitches about 1/3in. apart. The use of an arterial clamp to control the renal vessels provided a bloodless field and facilitated closure of the calyx—an important step in the operation. The clamp is probably to be preferred to digital occlusion, providing the kidney can be adequately mobilised. The wound was then sutured, a drain being left in the kidney bed, and a self-retaining catheter was inserted.

The post-operative course was uneventful. X-ray confirmed removal of the stone, and a post-operative pyelogram showed that the whole of the calyx had been removed. There was little macroscopic haematuria, but red blood cells and pus were present in catheter specimens of urine. On one occasion a growth of coliform bacilli was obtained: this was successfully treated with sulphadimidine.

The piece of kidney which had been excised was found to contain a cystic space communicating with a dilated calyx, and

containing several fragments of calculus. The renal parenchyma was partly destroyed by chronic pyelonephritis.

#### Acknowledgement

I wish to thank Mr. D. J. Robertson for his kind permission to publish this case, and for his helpful criticism.

\* \* \*

#### References

1. Randall, A. (1937). *Surg. Gynec. Obstet.* 64, 201-208.
2. Randall, A. (1937). *Ann. Surg.* 105, 1009-1027.
3. Anderson, L. (1946) *Proc. Staff Meetings Mayo Clinic* 21, 326.
4. Hamilton-Stewart, H. (1952) *Ann. Royal College Surgeons* 11, 32-46.

#### Student's Union

The St. Bartholomew's Hospital Annual Ball will be held in the Royal Festival Hall on Friday, May 13th. from 11 p.m. to 5 a.m. Double tickets, price £2 10s. 0d. (including Supper and Breakfast) may be obtained from the General Manager, T. E. Bean.

#### Lecture

At 12 noon on Tuesday, April 12th., Dr. Ronald Gibson of Winchester will give a lecture on "General Practice".

## THE ANDAMAN ISLANDS

By HERMANN LEHMANN

THE Andaman Islands were virtually unknown until the end of the 18th century. They lie in the eastern part of the Bay of Bengal where a line drawn due east from Madras meets at about 700 miles distance another drawn due south from Akyab in the Arakan; eastward Tenasserim, bordered by the islands of the Mergui Archipelago lies about 320 miles away. A glance at the map will show that the Himalayan mountains in their sweep to the south-east are continued in the Arakan hills of Burma which end at the sea where the Irawaddy river joins the Bay of Bengal. From there a chain of islands stretches from Cape Negrais in Burma to Achin Head in Sumatra, forming a single geographical system, as it were, the tops of a submarine range of mountains rising here and there above the sea. The Andaman group itself stretches for about 210 miles from north to south. To the north are the Cocos islands, uninhabited until the 19th century, and 80 miles to the south are the Nicobar islands. Great Andaman is about 140 miles long and includes besides a number of lesser islets the North, Middle and South Andaman. To the south about midway to the Nicobars lies Little Andaman, a single island about 27 miles long and 10-16 miles wide.

The Andamans and the Nicobars are inhabited by two entirely different races. The Nicobarese are of medium stature, have brown skin and straight hair and resemble the Malays. The Andamanese are (or now mostly were) the purest example of the Negrito race; they are less than 5 feet high, very dark and have frizzy "peppercorn" hair. Negrito influence can be found in the pre-Aryan and pre-Dravidian aboriginals of South India. In the Malayan jungles the Semang show pronounced Negrito traits and similar groups are found in the interior of Java and of the Philippine Islands (possibly also in Sumatra). Recently, small parties of Negrito-like individuals have been found in the rain forests of North West Australia.

During the coldest phase of the ice age there were only few ocean gaps between the solid land masses of Asia and Australia, of which then Sumatra, Java, Borneo, New Guinea and Tasmania formed a part respectively. These few gaps could be crossed quite easily on rafts. However, it is certain that now many thousands of years must have passed since the various surviving branches of the race were cut off from each other. They form one of the oldest groups of mankind unable to withstand any newcomers. Their survival in the Andamans must be due to the isolation of these islands. Indeed, since the occupation of Big Andaman in 1858 the "Andamanese" dwindled from about 4,000 to about 600 in 1901 and to a mere two dozen today.

There is a parallelism between the fate of the Andamanese and the Nicobarese on the one hand, and the Australian and the New Zealand aborigines on the other. In both cases the mongoloid group (Maori and Nicobarese) was able to withstand the arrival of civilisation, but the more ancient pre-mongoloid survivors, protected until then by their inaccessibility, now virtually perished.

### The period of isolation

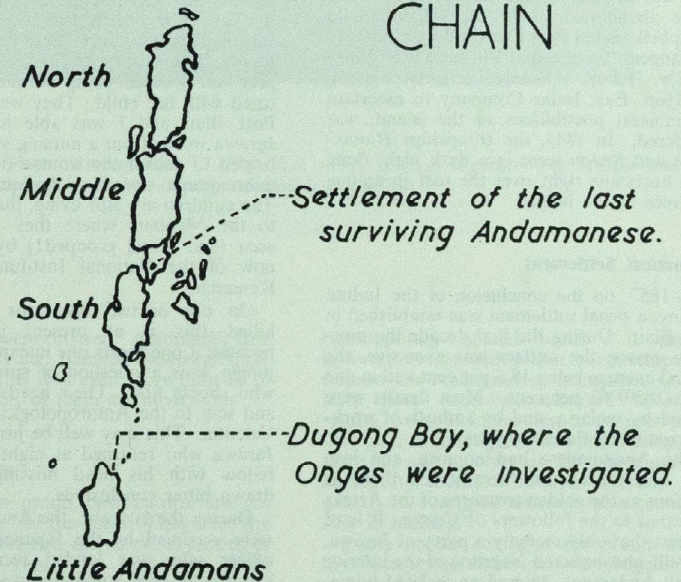
Until the close of the 18th century, the Andaman islands were heard of, but strenuously avoided, by the seafarer. There was a story that their inhabitants were man-eaters, a rumour which can probably be traced to the hostility which they showed to all strangers. In the old days the islands were raided by the Chinese and Arabs who carried off the Andamanese as slaves. This produced fear and hatred with a will to fight to the death, rather than to allow a stranger to approach. Stranded crews were invariably murdered.

The word Andaman is very old and can perhaps be traced to Ptolemy. He mentions a group of islands under the name of Good Fortune, Agdaimonos Nedos (?Andaman Island). Even then the inhabitants were said to be cannibals. The Chinese must have

known them, as some of their records of the neighbouring Nicobars are more than a thousand years old. In the 9th century an Arab traveller writes: "The people eat human flesh quite raw; their complexion is black, their hair frizzled, their countenance and eyes frightful." In the 13th century, Marco Polo writes: "Angamanain is a very large island. The people are without a King, and are idolaters, and no better than wild beasts. All

the men of this island have heads like dogs, and teeth and eyes likewise, in fact, in face they are just like big mastiff dogs!" In the 16th century Master Caesar Frederic passed near the Nicobars on his way from Malacca to Goa. He writes of the islands of "Andemaon," that their people have small barques and "with them they take one another and eat one another, and if by evil chance any ship be lost on these islands, as

## THE ANDAMAN ISLAND CHAIN



The Andaman Islands.

many have been, there is not one man of those ships that escapeth uneaten or unslain." Towards the end of the 17th century, an Italian doctor records that an English vessel was driven to the islands, a native who was carrying a shell of water accidentally spilt some of the contents on the anchor, and the part so wetted immediately turned into gold. This led to an attempt at conquest by a party of Dutch: "landing 800 men they were well entrenched to defend themselves against those wild people, yet they were most of them killed; very few having the good fortune to fly to their ships." At the close of the 18th century the Hon. East India Company sent small expeditions under Colonel Colebrooke and Captain Blair to report on the possibilities of the group. Their accounts were so satisfactory, that, in 1789, Blair was sent to establish a settlement in what is now called Port Blair. All went well there, until orders were received to transfer to the north, to what is now known as Port Cornwallis. This station proved so unhealthy, and local hostility was so troublesome that the venture had to be abandoned. In 1824, Sir Archibald Campbell visited Port Cornwallis on his way to Rangoon for the first Burmese war. Later on, Dr. Helfer, a Russian scientist sent by the Hon. East India Company to ascertain the mineral possibilities of the island, was murdered. In 1844, the troopships *Runnymede* and *Briton* were in a dark night flung by a hurricane right over the reef in among the trees of the jungle.

#### Permanent Settlement

In 1857, on the conclusion of the Indian mutiny, a penal settlement was established in Port Blair. During the first decade the mortality among the settlers was excessive, the annual average being 18.6 per cent and in one year (1859) 63 per cent. Most deaths were caused by malaria, and by ambush of working parties by the aborigines.

The Andamanese had no iron, and iron pots and tools must have struck them as precious as the golden treasures of the Aztecs appeared to the followers of Cortes. It is of interest that only recently a party of Jarawa, the still unconquered Negritos of the interior of the Andamans, entered an isolated homestead, murdered the inhabitants, and left with the aluminium cooking pots.

In 1858, the Negritos of the Andamans could be divided into three groups closely

related to each other in customs and appearance, but living strictly apart; Jarawa, Andamanese and Onge.

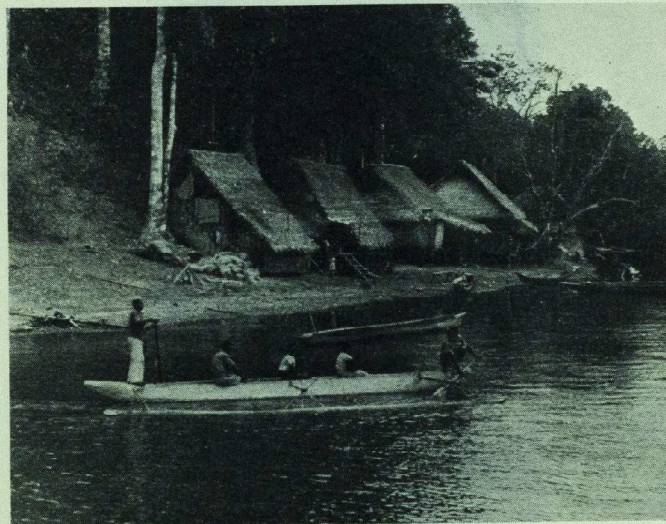
#### 1. Jarawa

Little is known about the Jarawa to this day. There is no man alive who has actually talked to them in the forests. They live in the inaccessible jungle, and all attempts to contact them or to befriend them have failed. Today, as a hundred years ago, they occasionally raid an isolated settlement or ambush a forest labourer, nearly always to obtain precious ferrous tools. They shoot their powerfully propelled arrows through the chest from the back. The suggestion was made to me to attempt a contact clad in a bullet-proof nylon vest; this idea did not appeal to me.

The Jarawa have no boats, and when they occasionally cross the narrow straits between the Middle and South Andamans, they do this on rafts which one of them pushes across a shallow part. One such party was surprised several years ago, and shot at, a pregnant woman being wounded and captured with her child. They were brought to Port Blair and I was able to learn some Jarawa words from a nursing sister who had helped to deliver the woman (unijebo—eye; unimunituga—beard; umtiqua—elephant). The children are still living, they were taken to the Nicobars where they were recently seen (and blood grouped!) by Dr. Sneath, now of the National Institute of Medical Research.

On one or two occasions Jarawa were killed—this is at present unavoidable—because if one meets one unexpectedly in the jungle, it is a question of survival for him who shoots first. Their heads were cut off and sent to the Anthropological Museum in Calcutta. This may well be justified, but the Jarawa who returned at night to find their fellow with his head missing must have drawn bitter conclusions.

During the last war, the Andaman islands were occupied by the Japanese. A British officer who was landed secretly from a submarine saw some Jarawa through his binoculars during his stay. He is one of the very few people who have seen and observed the Jarawa undisturbed. When the Jarawa killed a Japanese officer in the forest, whole-



The last surviving "Andamanese". They live where the sea separates the Middle and the South Andamans. The ancient outrigger canoe is still in use.

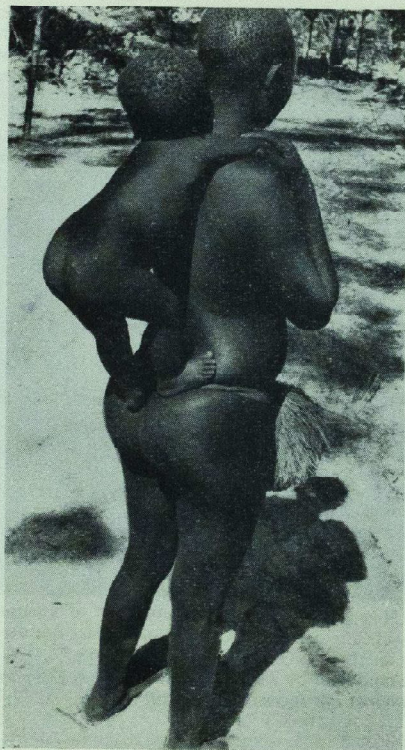
sale reprisals were ordered. Aeroplanes flew over the forest and bombed wherever there was a fire. Thus it is even more difficult to know how many of them are alive today.

#### 2. Andamanese

The Negrito group best known are the "Andamanese" of the coast. They were the people who harassed the working parties of 1858. Stern repressive measures were adopted which were then followed by measures of "reclaiming the savages from their barbarous custom of murdering all strangers." Homes were founded to bring together members of the various groups, but as one

contemporary official writes "it cannot however be contended that our attempts to reclaim the Andamanese from their savage state have produced unmixed beneficial results, for it is found that in proportion as they gain in intelligence and tractability, the more fat and indolent do they become, and having no incentive towards exertion frequently lose in good measure their quondam skill in hunting."

These people comprise the group which has been most thoroughly investigated by anthropologists, and to them refers nearly all the classical information on the Negritos of the Andamans. Nearly every ethnological museum has a specimen of their powerful bows, larger than the men themselves, and



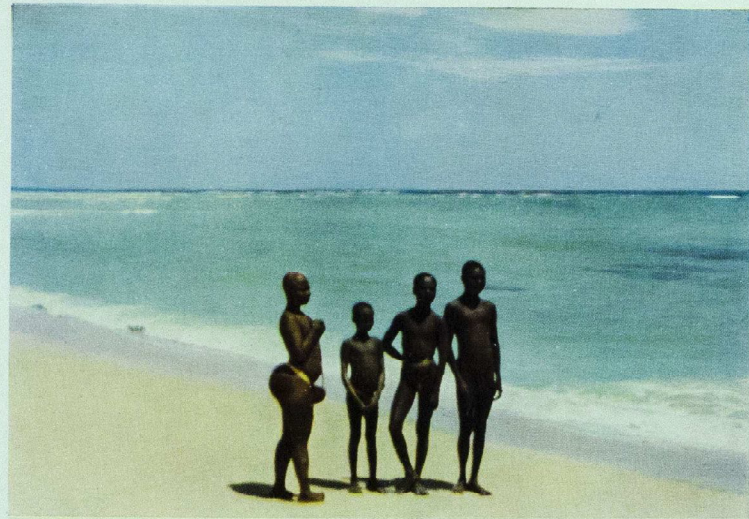
*Steatopygia has its uses. "Peppercorn" hair, a small stature and steatopygia had linked the Negritos in the eyes of some anthropologists with the Pygmies of Africa.*

many display their beautifully worked canoes. They are also the group which is now virtually extinct. Alcohol proved a deadly enemy and syphilis was introduced in 1870. In 1877 an epidemic of measles broke out when a batch of convicts from Madras introduced the disease. It was estimated that one-half, if not two-thirds of the whole population perished by it. Influenza came, and still further decimated the islanders. With the death rate enormously increased the birth rate fell to almost nothing. One observer reports that of a total of 500

survivors seen in 1907, there were not more than a dozen children of less than five years old. There are still some 20 of them left today. They live on the border between the Mid and South Andamans and are employed as Bush Police to warn off the Jarawa from crossing into the South Andaman where the Indian Government is carrying out a settlement plan for East Bengal refugees. We visited them by launch. The little men and women came alongside in their outrigger canoes, and came soon on board. They were obviously not pure, some of them had Indian,



An Andamanese Greeting  
seen among the Onge



On the Shore  
Note the steatopygia of the red painted woman.



A mud mask

some Burmese features. We took 16 blood samples and the anthropologists in our party took fingerprints and carried out other measurements.

### 3. Onge

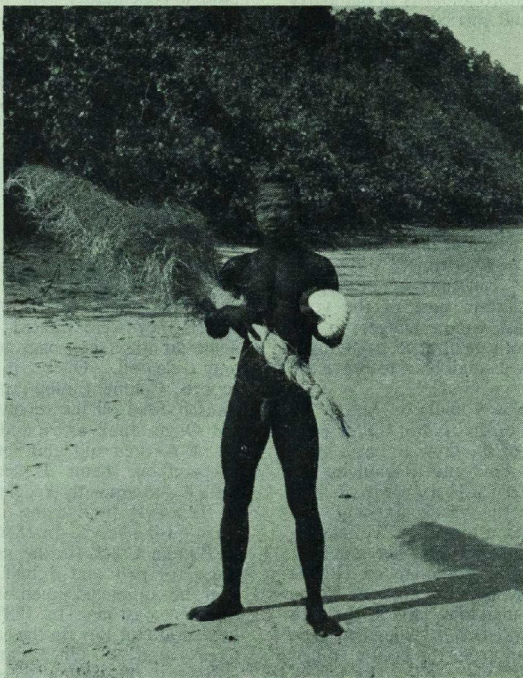
The third group of Negritos are the inhabitants of the Little Andaman. This island has little to tempt a settler. It is difficult to approach by sea. The surrounding reefs and shallows do not allow a landing by any but the smallest boats, which have to be launched some four hours "rowing time" away from the island. A visit can only be attempted with safety at a certain time of the year, when the north-east wind changes to the south-west, and both neutralise each other sufficiently to allow a small boat to brave the waves.

The first contact was made on March 21, 1867. The Captain of the *Assam Valley* went ashore with seven of the crew to cut a spar. They were seen to land and to haul up the boat; an hour afterwards a crowd of little men were seen on the beach, dancing. No Europeans were seen afterwards. To investigate further Commander Brooker went on April 17 to the Little Andaman on H.M.S. *Sylvia* (a survey vessel). On account of the heavy surf he was unable to land at the spot where the Captain of *Assam Valley* had been last seen, but he saw from the boat a coil of rope and a sailor's blue cap on the beach. On April 19, the *Kwan Tung* was dispatched under Lieutenant Duncan, R.N.R. Two cutters failed to land. A renewed attempt on April 20 failed again, owing to the heavy south-west swell. Finally on April 21 a landing was made at Hut bay. A shower of arrows wounded two men, the ship's party fired to cover their retreat, and Lieutenant Duncan reported that the missing men from the *Assam Valley* were probably dead. On May 6, I.G.S. *Avracan* was sent, carrying on board a small punitive force under Lieutenant Much. One of the landing boats was upset with the loss by drowning of Lieutenant Glassford of the 9th Bengal Native Infantry. The others landed safely. Several skirmishes followed, but difficulties were encountered in landing rafts to supply the party with sore-needed ammunition. Some 100 Onge were killed, and a skull was recovered from the beach which was subsequently found to belong to a European, thus the fate of the *Assam Valley* party being confirmed.

Six years later, in 1873, General Stewart paid a conciliatory visit to the island, and after leaving presents was attacked. A skirmish ensued, in which an Onge was wounded, and died while being taken on board. Then followed a punitive expedition by Captain Wimberley.

In 1880, Maurice Portman in the company of Colonel Cadell visited the island for the first time to establish friendly relations. They frequently went there, and, though shot at, only once did they return this compliment. Visits were paid on and off over the next few years, presents were left, contact was made on some occasions, but on others hostility stopped just short of open battle. Prisoners were taken and carried back to Port Blair, where they were treated kindly, and after some months taken back to Little Andaman and released. Once, in 1885, Portman reports, Colonel Cadell landed and to amuse himself fired off his revolver in the air. All the Onge slunk away and Portman had to go off to their hut and spend the afternoon in pacifying them. It seems that Colonel Cadell subsequently redeemed his character in their eyes by dancing a Highland reel to them on the beach. In 1886, Portman landed at Bumila Creek (in the north) and camped there for two and a half months. In that year, he completed much of the survey of the island's coastline. In 1889, Colonel Cadell landed at Hut Bay (in the east) and at Bumila Creek, and 18 Onge came at their own request to Port Blair where they stayed at Portman's house for three weeks before they were sent back. This friendly relationship continued, and in 1893 Portman brought along the first anthropologist, a Monsieur Lapicque, who came to study "les vrais sauvages." In 1894, a party of 52 was taken to Port Blair where they remained for one month.

From 1900 until today, the island has been visited irregularly, usually on behalf of the Forestry Department. The launches anchored at a distance, landing parties went ashore for the day, and returned to the launches before nightfall. On one visit they brought with them the German anthropologist, Freiherr von Eickstedt. Thus the Onge never became as hostile and intractable as the Jarawa, yet they remained sufficiently remote to discourage strangers from making a possibly deleterious contact. It cannot be said that they ever became entirely friendly, thus only in 1949 did they murder a party of shipwrecked Chinese. On the other hand, a



*This Onge has been gathering raw material for his wife's tussle skirt. Although the Onge are small, they are well proportioned. This differentiates them from the Pygmies of Africa. Note the mud mask, the slender fibre garment and the abducted big toes. The Onge use their big toes almost as much as their thumbs for picking up objects from the ground and for holding implements when sitting. In the left hand the man carries a nautilus shell which is used as a drinking vessel or for baling out water from canoes.*

Burmese policeman, Pado, fled to the Little Andaman during the Japanese occupation, spent several years there, and greatly increased the confidence of the inhabitants towards strangers.

After the second World War, the Anthropological Department of the Government of India at Calcutta began to take a systematic interest in the Andamanese islands, including the Little Andaman, making use of the policeman Pado in doing so. Professor B. S.

Guha visited the Onge in 1948 (Dugong Bay in the north-east) and A. K. Mitra in 1949 (Hut Bay). S. S. Sarkar came in 1951 and performed some anthropological tests (Dugong Bay), and on this occasion visitors camped on the island for the first time since Portman had done so in 1886. Dr. Sarkar was accompanied by Dr. Cipriani, an Italian anthropologist who had left Florence University after the fall of Mussolini, and had obtained an appointment under Professor

Guha. In 1952, B. K. Chatterjee came and left Cipriani at Dugong Bay. Cipriani stayed on the island for 40 days and crossed the northern half from coast to coast. He then saw more than 200 Onge, and from the arrangements of 14 communal huts encountered, he concluded that in the northern half there should be some 360 of them altogether. Thus there seemed to be on the Little Andaman a considerable number of survivors of the ancient Negrito race. This made a detailed study of their blood groups and of other features a promising proposition.

#### The Little Andaman in 1953

"Negrito" is a Spanish word, and means "a small black." It has always been a puzzle,

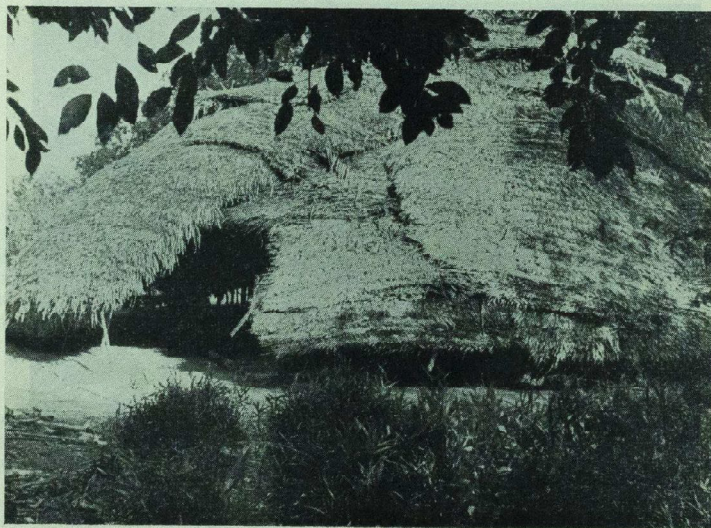
to some anthropologists at least, to which part of the human family these little dark people belonged. It was of particular interest whether they were related to the Pygmies of Central Africa. The frizzy "peppercorn" hair, the steatopygia, and small stature suggested a possible link. In 1952, I had visited South India in a search for the sickle cell haemoglobin. On finding it in the Veddoid aborigines, a distinct connection between India and Africa seemed to have been established (later the likely link between these two was found in the Veddoids of South Arabia). I had been accompanied by a distinguished expert in blood grouping—Miss Marie Cutbush of the M.R.C. Blood Transfusion Laboratory. Much important and relevant information on the peoples of South



*Making a tussle skirt. The couple are sitting on a temporary bedstead. The ribbon in the woman's hair is a present straight from Bari's.*



India had been obtained from her detailed investigation of the blood groups of tribes we had visited. Thus the Government of India extended to me an invitation to visit the Andamans, and to survey the Negritos with a view to deciding whether or not they were related to Africa. On receiving the news that I, a Non-Indian, had actually been invited to visit these jealously guarded and usually inaccessible islands, my friends, particularly Dr. A. E. Mourant, one of whose great interests is the anthropological aspect of blood group distribution, persuaded me to accept the offer and to follow up such a unique chance, although the connection with my own interest in the sickle cell haemoglobin was remote. If there was a connection between the Andamanese Negritos and Africans, it



*A communal hut. It is inhabited during the rainy season. Each family has a bedstead. On it its children are born, and under it its dead are buried.*

would be with the Bushmen and similar ancient African races, none of which are carriers of the sickle cell gene.

Thus in January, 1953, I left for the Andamans. On this occasion I took with me Miss Elizabeth W. Ikin of the M.R.C. Blood Group Reference Laboratory. On our way we were joined at Calcutta by Dr. Büchi, a Swiss anthropologist and his assistant, Mrs. Dass, both members of Professor Guha's staff. Dr. Cipriani was to meet us in Port Blair.

In 1952 I had met Mr. A. K. Ghosh, I.C.S., the Chief Commissioner of the Andaman and Nicobar Islands, in London, and I had also conferred with Dr. Cipriani when he visited Europe in that year. There were only two

sea-going motor launches at Port Blair, and they were needed for the many tasks of administering the island chain. While one could be spared for a day to take me near the Little Andaman, it had to return to Port Blair once a landing had been achieved. All it could do ordinarily was to take me to the Little Andaman, and to leave me there for a week or two in the hope that I would contact the Onge in the course of the stay. I would have gifts of red cloth, files and nails, tobacco leaves, etc., and this would make as many of them as possible inclined to stay near me. A launch would then go back to pick me up at a given date, and wait a few hours while I was collecting samples of blood before my departure. I would thus be able to arrive in Port Blair in a few hours with fresh Onge blood. However, the Chief Commissioner had recently taken a boat off some Chinese pirates, and was converting it into a motor launch. Electricity was being installed, so that a refrigerator might be carried on board. This vessel he hoped to be able to put at my disposal for the whole of my stay at the Little Andaman. I was to land on the island for the day and to spend the night on the launch.

Dr. Cipriani had an alternative plan, should the new launch not be available in time. To cut out the time I had to spend waiting till a sufficient number of Onge had arrived, he would join the expedition and go ahead of me to the Little Andaman and camp there. When a sufficient number of Onge had collected, he would send me a wireless signal. I would then come, take blood samples, and return on the following day to Port Blair on the same launch. This I could repeat several times, using on each occasion the launch for the minimum time, and bringing back to Port Blair fresh blood samples, unspoiled by storage.

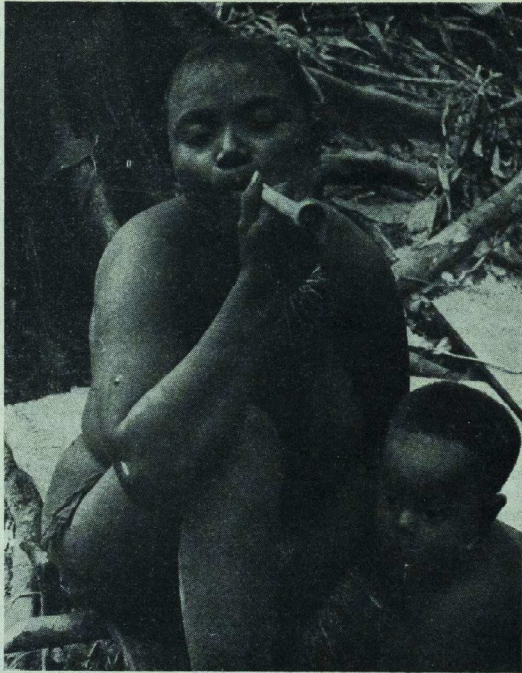
Neither of these two plans materialised when we eventually arrived in Port Blair. The new launch was still being converted, and Cipriani, who had left for the Little Andaman before we arrived at Port Blair, turned up again there a few days later. He had made four attempts to land at South Bay. One boat was turned over, one sank and one was smashed. Luckily, the first two boats could be salvaged and there were only minor injuries, but much equipment had been lost, and, of course, one boat. Cipriani was somewhat shaken, because he had been trapped under the boat which had turned

over, and had been rescued only at the last moment from what seemed likely to be his coffin. It was unfortunate that, at the time, the Chief Commissioner was away on the Nicobars. In his absence, his staff could not authorise a second attempt involving a possible loss of life and considerable expenditure. Launches, boats and stores are very precious in the Andamans. Luckily, just at that time the Naval Survey Vessel I.N.S. *Investigator* visited Port Blair. Commander Cursetjee, I.N., agreed to make a "fuel consumption test" in the course of which he was going to land Cipriani, Büchi and myself, with guard and cook, etc., on the island. This was an ideal solution, as the *Investigator* had echo sounding devices and was able to go fairly near to the Little Andaman. In the event, when the *Investigator* arrived off the island, a motorboat was launched, also equipped with echo sounding devices, which took us even nearer to the shore. The motorboat carried a small rowing boat which was needed at the very end only for a short distance. A landing operation which usually would have occupied a whole day was thus accomplished in two and a half hours. After us came stores, a guard of Ranchi forest workers from Port Blair, a cook, and a wireless operator. All were transferred without mishap, and with typical naval efficiency. The Ranchi guard which came with us for our protection consisted of aborigines from Bihar who were on the Andamans for forestry work. I could not help remembering that during the war, when I was for a time in Bihar, I had on occasions been given a guard specially to protect me from these very Bihar aborigines.

As soon as we came ashore, we saw small dark figures running towards us and we noticed, to our relief, that they were without bows.

We started to distribute presents right away, and a big bin was brought forward in which tea was to be prepared, as a special treat. Although I had expected it, I was yet amazed at the tiny stature of the Onge: their height is about 4½ feet.

They are well proportioned, unlike the African Pygmies who have large bodies and very short legs. One was also struck with the white painted faces, the reddish painted bodies, and, when skin was properly visible, its deep coal black colour. The white face masks are made of mud and the bodies are smeared with ochre-stained turtle fat. Their



*Smoking. The tobacco leaves we brought as presents were chewed. The pipe contains jungle leaves. It resembles those described from New Guinea by the late Dr. Haddon. Another type of pipe the Onge use is made from a crab's claw.*

gait is strutting, and particularly the women walked with their legs wide apart. This may be due to the tassels of yellow fibre they wear in front.

I soon learnt the words for "stretch your arm," "make a fist," "flex your arm" (wakobe, enobekobe, jeebebe) and started to collect blood samples right away. These were taken back to the *Investigator* by the sailors who had brought us ashore, and were in the hands of Miss Ikin at Port Blair on the evening of that day.

While we put up our tents, some 30 Onge collected, and they proceeded to construct their charpoys near our camp and to light their fires. Their bedsteads are raised, and otherwise unprotected, but when the wind

rises a primitive shelter is quickly erected. The Onge cannot make fire: one or two fires are kept going all the time. When they move they light logs impregnated with resin, and when they settle down they use this torch to start their new fire. It is the duty of the women to keep these fires alive.

Next morning I provided a free spectacle by shaving. Cipriani and Büchi grew beards, so all came to watch me for this strange ceremony. I soon allowed them to join in the fun; one held the mirror, another the brush, another the small bowl with water.

We were entertained in turn. I saw three types of dances. One was frankly sexual; another consisted of four hops: right leg before left, right leg back, left leg forward

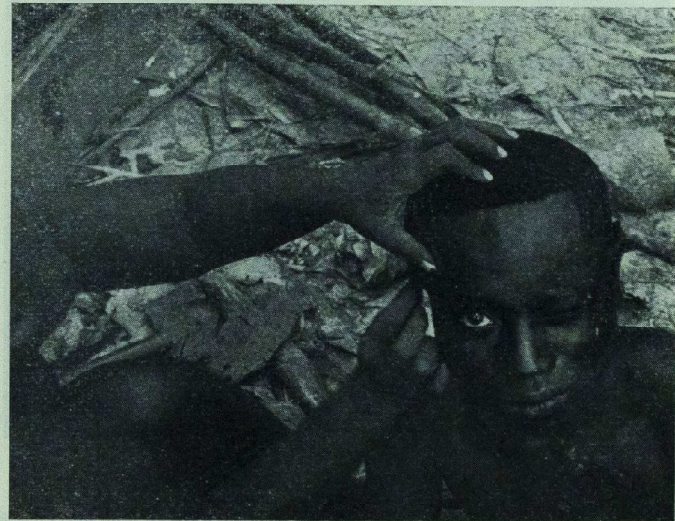
before right, left leg back. In the third, the women hop on one leg and noisily beat with the heel of the foot of the other leg backwards at their ample gluteal region. Perhaps one of the most important observations we made was that the Onge practise the "Andamanese greeting." Past records describe the Andamanese on meeting after a long separation to testify their joy by sitting with their arms round each other's neck, and to remain silently gazing for an "absurdly long time." It was with great excitement that we noted this type of meeting when two newcomers joined the camp.

The little metal the Onge have comes from shipwrecks or from the presents received from past visitors. They are adept in converting a nail into a deadly sharp arrow head.

To shave, they chip flints from volcanic glass and use a chip for two or three strokes at a time. One of the last gestures Commander Cursetjee extended to us was to

leave behind an ample supply of beer. The empty bottles soon took on the role of the more authentic obsidian. It was a great experience to see flints still being used, and one felt as if one was witnessing life of many thousands of years ago. In the rainy season the Onge live in large communal huts. Each family has a bedstead above which they hang trophies of chase. The dead are buried under their bedsteads; and when only the bones are left these are disinterred and distributed among the family and friends of the deceased.

In the 19th century, when Portman used to visit the Onge, they were always kept strictly separate from the Andamanese to prevent the spread of syphilis. However, Dr. Alcock, who visited the island with Portman in 1888, found sores of the body to be those of "constitutional syphilis" and they readily yielded to the treatment for this disease. History does not relate whether these sores were due to syphilis or yaws.



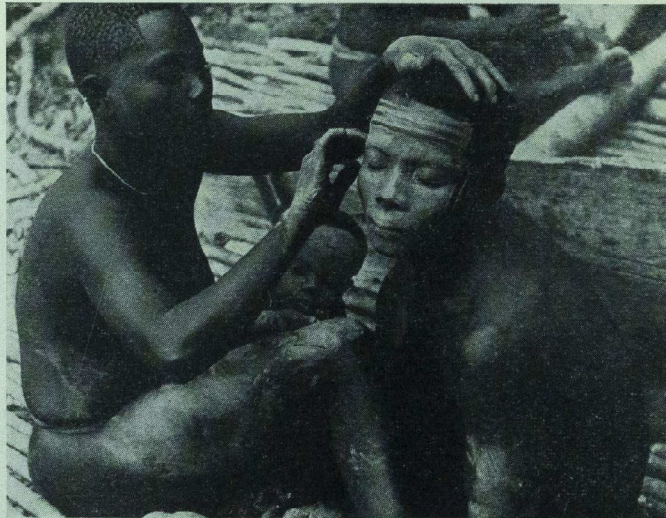
*A neolithic survival. Shaving with a glass flint.*

On another occasion, Condylomata were seen, and Portman also reports that he saw many irregular and discoloured teeth. Possibly the disease can be traced to Malay pirates. We gave a trial to a special field technique of the Kahn test on behalf of the Royal Army Medical College, Millbank. By means of this test we could establish that the majority of Onge had a positive Kahn test in their serum. However, we saw no obvious congenital syphilis. We did see sores and photographed them, but these could well have been due to yaws.

Filariasis is not known to exist on the Andamans. Portman reports that he saw a case of elephantiasis on the Little Andaman. When on the Little Andaman we took blood smears at daybreak, because the Onge wanted to leave the camp to hunt as soon as

it was light. When I brought these slides back to London for examination for malaria parasites (which were absent), Dr. Shooter found *Microfilaria Bancrofti* in a number of them.

The results of the blood grouping were fairly unequivocal; there was no suggestion of any connection between these "little black" and the African races, but with one exception, all findings were pointing towards a relation with the inhabitants of the Admiralty Islands and of New Guinea, the Oceanic Negroes. When Dr. Büchi and I left for Port Blair, we did so rather less luxuriously than we had come. An ordinary rowing boat appeared and rowed us out to an ancient launch which was waiting for us on the horizon. The Onge had seen it long before any of us had noticed this "speck"



"Facial" on the Little Andaman. The face is covered with a mask of mud and fat and a pattern is drawn with the fingers. Note the little son who takes a lively and interfering interest in his mother's "palette." The Onge lead a happy family life. This picture is reproduced by kind permission of the "Eugenics Review".

in the far distance. We said goodbye to Dr. Cipriani and to our guard. They were staying on, hoping to cross the island from north to south. We had to return to bring specimens back to Port Blair whilst they were still in a condition to be examined.

On our return journey we circled the island. At South Bay we saw the smashed boat left behind when Cipriani had made his first attempts. The sea was too rough for us to make an attempt at salvage. When the island at last disappeared from our view it seemed to us as if we were saying goodbye to a little paradise. Professor V. Ball, F.R.S., wrote in 1880 of the Andamans: "Of all the places I have seen in Europe, Killarney can alone convey an idea of these scenes. The blue waters, the luxuriant emerald green vegetation down to the margin of the coast, and the passing showers which brighten all the aspects of nature, have their counterpart here."

I would like to take this opportunity to express my gratitude to Professor B. S. Guha, the distinguished Director of the

Department of Anthropology, Calcutta, for his help extended to us while in India and on the Andamans. My thanks are also due to Dr. Cipriani, Dr. Büchi, Miss Ikin and Mrs. Dass for their collaboration and their delightful company. Commander Cursetjee, I.N., must be thanked for providing the transport to the island of the Onge, and Chief Commissioner A. K. Ghosh, I.C.S., and Commander Rangel, I.N., for arranging the return to Port Blair. The work there would have been impossible without the great kindness extended to us by the Chief Commissioner, the Deputy Chief Commissioner, the Harbour Master and their colleagues in the Forestry and Labour Departments. My special thanks are due to the Senior Medical Officer, Dr. Sondhi, the Port Health Officer, Dr. Chakrabarthi, and the Matron of the Port Blair Hospital, Mrs. Burrows, for their unflinching kindness and hospitality in providing us with laboratory facilities. I have thanked elsewhere already the Nuffield Foundation for their generous support.

---

*The Journal would like to express its thanks to Dr. W. R. Gibson, without whose generous gift this article would not have been possible.*

---

## SO TO SPEAK . . .

### Heard in the Alimentary Canal:—

One worm to another: "Shall we migrate, my dear?"  
—"If you insist!"

### Male Patient in the Cardiac Clinic:

"They say I've got menstrual stenosis, Doctor!"

## DERMATOLOGY AT BART'S

### AND SOME CONTRIBUTIONS MADE TO DERMATOLOGY BY BART'S MEN.

By I. S. HODGSON-JONES.

IT IS, perhaps, not always fully appreciated how great a part the physicians and surgeons of this hospital have played in the foundation of modern dermatology, nor how many dermatological conditions were originally described by Bart's men.

One cannot say in which particular year dermatology was born at Bart's, but the first stirrings were undoubtedly felt in 1554 when a woman named Elizabeth Hall was entrusted with the care of the "scald and leprous heads" (presumably infected and verminous); she was paid three shillings for each one cured. In 1622, the Governors appointed Frances Houlcombe to undertake this same task, and she was paid twenty shillings for each case; she received £27 in 1623, £34 in 1624 and £40 in 1625.

In later years departments were set apart for particular kinds of disease, in addition to those anciently called "Foul Wards," and they were at first conducted by demonstrators who were either Assistant Physicians or Assistant Surgeons on the Hospital Staff. The first list of these demonstrators appears in the Hospital Reports for 1867-8, when diseases of the skin were undertaken by Doctors Andrew and Southey.

Gee succeeded to this post in 1869. It is perfectly clear that he in no way considered himself to be a specialist in skin disease, any more than in paediatrics, for like most of his contemporaries his interests were in medicine as a whole. He is said to have remarked "there is a name that I hate, yea there are two names that my soul abhorreth, the name of a specialist and the name of a consultant." for he thought both were pretentious terms addressed to the public and unworthy of physicians. After little more than a year, Dyce Duckworth followed, and in 1875, a surgeon, Morratt Baker, took over; both were men of outstanding ability, and descriptions of many of their cases may be seen in the Hospital Reports of that period: these are models of sharpness of observation and clarity of presentation.

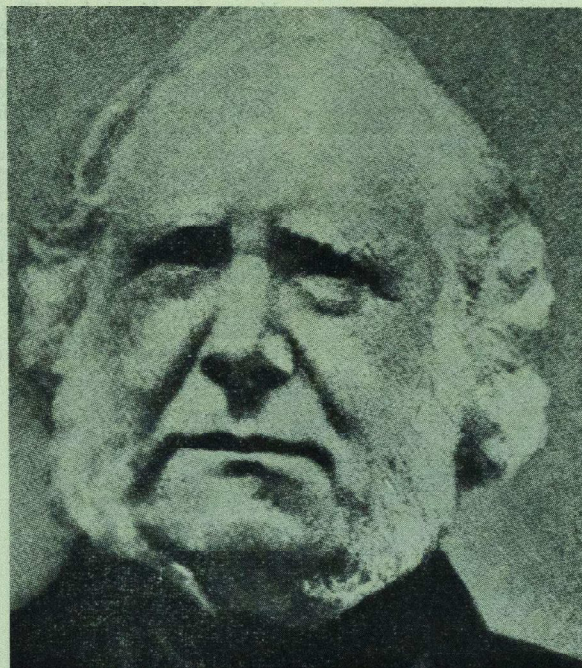
In 1885, Harrison Cripps took over the department, and in 1894 was followed by

West, and then by Ormerod. At last, in 1908, it was decided that Dermatology should be in the charge of a permanent physician who should not have to undertake other duties, and in that year Horatio George Adamson was appointed.

Adamson was in charge of the Department for twenty years, during which time its growth was prodigious. In 1928, Dr. A. C. Roxburgh took over from him as Physician-in-Charge of the Department, and he was followed in 1946 by Dr. R. M. B. MacKenna.

It has not always been those who have worked in the Department, nor those who have remained on the staff of Bart's after their student days, who have made all the important contributions. In 1825, William James Erasmus Wilson began his medical studies at Bart's as a pupil of Mr. Abernethy. He qualified in 1831 and soon became an Assistant Physician at University College. In the early thirties he turned his attention to skin diseases, and the impression he made on dermatology can hardly be overestimated. He published the first journal in England devoted exclusively to dermatology, in which appeared his masterly and definitive description of lichen planus (Wilson, 1869i) and he described exfoliative dermatitis (Wilson, 1870) sometimes still called Wilson's disease. Also he wrote of the occurrence of spider naevi in liver disease (Wilson, 1869ii) under the name "Eruptive Angeiomata," at least the presumption is that the patient had cirrhosis, for he was a publican aged 30 years who had for some time, as he put it, yielded to the temptation of his calling. Moreover, Wilson may be said to have laid the cornerstone of psychosomatic dermatology when he lectured on "Neurotic Excoriation" (Wilson, 1875).

Wilson founded a Chair of Dermatology at the Royal College of Surgeons, and held the post himself for many years. When he resigned, the conditions of the trust were such that the whole domain of Pathology was included and the dermatological connections were lost. In addition, he was a man of considerable wealth, and paid for the



Sir Erasmus Wilson

transport of Cleopatra's Needle to London, which cost him £10,000.

James Paget, who entered St. Bartholomew's Hospital in 1834, must have been one of the most outstanding students the Hospital has ever had, for he made his well known discovery of the *Trichina* parasite in his first year of training. After a short period of study in France, he became Lecturer in Physiology and then Assistant Surgeon to the Hospital. In 1874, Paget published his paper "On diseases of the Mammary Areola preceding Cancer of the Mammary Gland," and it is perhaps worth while mentioning here exactly what he did describe; he said:—

I have seen about fifteen cases of a certain chronic affection of the skin of the nipple and areola which is very often succeeded by the formation of scirrhous cancer of the mammary gland, the events in all cases were so similar that

one description may suffice. The patients were all women various in ages from 40-60, the lesion had the appearance of florid red, raw surface very finely granular like the surface of very acute diffuse eczema or like that of acute balanitis. I have not seen this form of eruption extend beyond the areola, and only once seen it pass into a deeper ulceration of the skin after the manner of a rodent ulcer.

I am not aware that in any of the cases which I have seen the eruption was different from what may be described as long persistent eczema and I believe that such cases sometimes occur on the breast and after many months duration are cured, or pass by, and are not followed by any other disease. But it has happened that, in every case which I have been able to watch, cancer of the mammary gland has followed within one year. The eruption has resisted all the treatments, both local and general, and has continued even after the affected part of the skin has been involved in the cancerous disease.

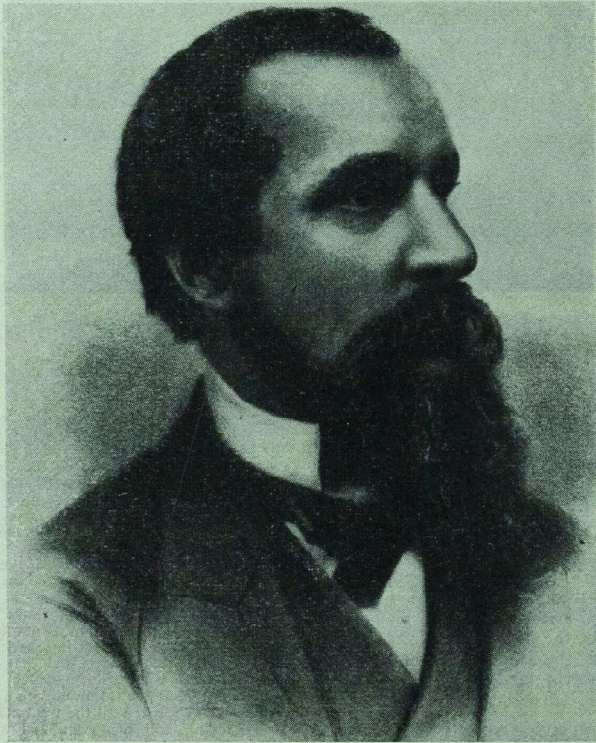
The formation of the cancer has not in any case taken place first in the diseased part of the skin.

It has always been in the substance of the mammary gland, and always with a clear interval of apparently healthy tissue.

In the cancers themselves, I have seen in these cases nothing peculiar, they have been various in form; some acute, some chronic, the majority following the average course, and all tending to the same end; recurring if removed, affecting lymph glands and distant parts, showing nothing which might not be written in the ordinary history of cancer of the breast.

Jonathan Hutchinson was born at Selby in 1828 and entered St. Bartholomew's Hospital in 1847, qualified in 1850, and held appointments at Blackfriars Hospital, The

Metropolitan Hospital and The London. He was equally eminent in medicine, surgery, ophthalmology, neurology, syphilology, and dermatology. He is best remembered for his work on syphilis, particularly for "Hutchinson's Triad" of signs in the congenital form of the disease, but his contributions to dermatology were many, for he was a most careful observer and a pioneer in the pictorial illustration of skin diseases. He described Cheiropompholyx in 1876, and today there is little that can be added to his original description of this extremely common vesicular eruption of the hands.



*Jonathan Hutchinson.*

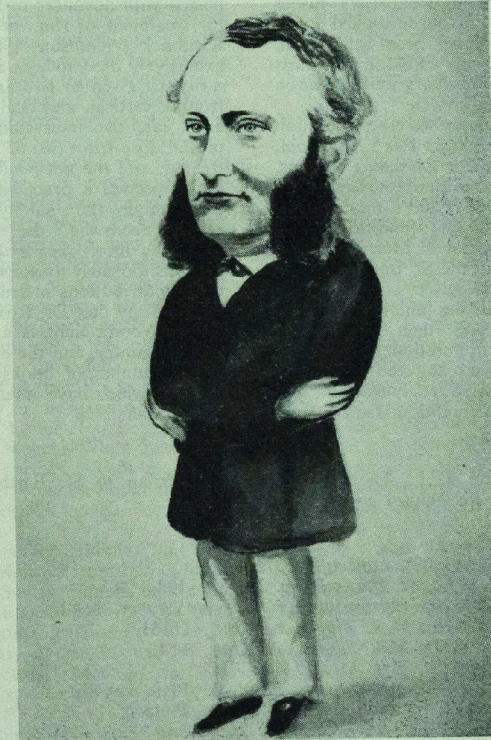
In 1878, he described "summer prurigo" to which his name is usually prefixed to distinguish it from the other type of pruriginous eruption described by Hebra. It is a relapsing papular eruption on the exposed parts of the body, occurring each summer and clearing up in winter months. He also described the recurrent erysipelas of the face which leads so frequently to elephantoid hypertrophy. (Hutchinson, 1883).

Yet another of his important papers was on the dangers of administration of arsenic over long periods (Hutchinson, 1887). He described arsenical keratosis of the soles and palms, and the epitheliomatous changes which may occur in these cases. The frequent use of inorganic arsenic, at that time, in the treatment of psoriasis and other conditions,

made these complications more common than they are today. They are by no means unknown these days, and cases arising now are usually the result of the vogue, some twenty or thirty years ago, for giving liquor arsenicalis in bromide mixtures for the treatment of epilepsy.

Hutchinson (1890i) also described the type of Lupus Erythematosus which occurs on the extremities in association with poor peripheral circulation. The name Lupus pernio has been given to the condition, but is best dropped because of the confusion between this and the Lupus pernio of Besnier which is sarcoidosis.

Angioma Serpiginosum (Hutchinson, 1890ii) was another condition which Hutchinson described, but it does not compare in



*William Marrant Baker.*

importance with the foregoing conditions because it is extremely rare. It is a slowly progressive telangiectatic condition usually of the limbs, the pattern of the dilated vessels being very irregular and reticulate; the cause of the condition is still unknown. Hidradenitis Suppurativa, was another condition the first description of which is attributed to Hutchinson in his clinical lectures; this deep purulent affection in the axilla is not uncommon and is as difficult to clear up today as it was when he drew attention to it 76 years ago.

William Marrant Baker entered the hospital in 1858 and in 1871 was appointed Assistant Surgeon; in 1875 he was given charge of the Skin Department. In his obituary he is said to have been a most outstanding clinician, but he never took cordially to antiseptics, believing in deodorisers rather than antiseptics. His favourite topical applications are said to have been Sanitas oil. Sanitas lotion and Condy's fluid, and it must be admitted, says the obituary writer, that on the whole his cases did well.

In 1873, Baker described the condition which was later to be known as Erysipeloid, to which he gave the title Erythema Serpens. He described this condition fourteen years before Rosenbach (1887) and if any eponym is to be attached to this condition it undoubtedly should be that of Marrant Baker. Baker's description in the St. Bartholomew's Hospital Reports is as perfect as it could be; it covers every detail, the initial scratch, the incubation period and then the painful erythema without suppuration. He kept a record of sixteen cases and the manner in which the condition was contracted, and pointed out that the condition was common

#### Acknowledgments

I wish to thank J. L. Thornton, A.L.A., Librarian to St. Bartholomew's Hospital Medical College for his helpful co-operation.

#### References

- Adamson, H. G., (1909), *Lancet*, i, 1378.  
 Baker, M. W., (1873), *St. Bart's Hosp. Rep.*, 9:198.  
 Hutchinson, J., (1876), *Illustrations of Clinical Surgery*, 1:49.  
 Hutchinson, J., (1878), *Med. Times and Gaz.*, 1:161.  
 Hutchinson, J., (1883), *Med. Times and Gaz.*, 1:4.  
 Hutchinson, J., (1887), *Brit. Med. J.*, 2:1280.  
 Hutchinson, J., (1890i), *Arch. Surg., Lond.*, 1. Plate xxxviii.  
 Hutchinson, J., (1890ii), *Arch. Surg., Lond.*, 1. Plate ix.  
 McDonagh, J. E., (1912), *Brit. J. Derm.*, 24:85.  
 Paget, J., (1874), *St. Bart's Hosp. Rep.*, 10:87.  
 Rosenbach, J. F., (1887), *Verh. dtsh. Ges. Chir.*, 16:75.

among the Smithfield butchers as a result of scratches and puncture wounds from bones.

James McDonagh was born in 1881 and trained at Bart's. He described naevoxantho-endotheliomatosis in 1912, which is a rare condition of interest to dermatologists and paediatricians. This consists of light yellow swellings scattered over the body of young children, having slightly depressed centres, and a glazed surface, resembling Xanthomata. During childhood, often at the age of about 3 years, spontaneous disappearance of the tumours occurs.

Adamson's name is still fresh in the minds of many Bart's men, he is still alive, although he has retired for some years. His contributions to dermatology were many and important, in particular his name is connected with advances in the x-ray technique for treatment of ringworm. The Adamson-Kienböck (Adamson, 1909) method is still extensively used today; an epilating dose of x-rays is given to five areas of the scalp—frontal, vertical, and occipital, and one over each ear, the intervening areas receive a partial dose from two or more areas directly treated, and the net result is that the whole scalp receives a practically even dose, thus overcoming the patchy epilation which resulted from the older methods.

Of the more recent dermatologists, it is perhaps too early to assess the importance of their contributions in true perspective; suffice it to say that Dr. Roxburgh was the first to use Wood's light as a diagnostic weapon in this country, and the hospital has no rival in the number of books on dermatological subjects which have emanated from its illustrious Staff.

- Wilson, E., (1869i), *J. Cutan med.*, 3:117.  
 Wilson, E., (1869ii), *J. Cutan med.*, 3:198.  
 Wilson, E., (1870), *Med. Times and Gaz.*, 1:118.  
 Wilson, E., (1875), *Lectures on Dermatology* (1874-5), p.192.

## NATURAL HISTORY SOCIETY

THE Society's Annual General Meeting took place in the small Abernethian Room on January 21. After the reading of the Hon. Secretary's report for 1954 and the completion of other business relating to the Society's future activities the time came for the presentation of short notes by members on various aspects of their field work.

Mr. I. S. Menzies started by presenting an interesting and colourful display of British butterflies, crickets and grasshoppers. He divided his exhibit into species favouring a woodland habitat and those found in a variety of other situations. The first group included the Purple Emperor and the White Admiral, both predominantly black and white species (thus mimicking the scattered light and shade effects of woodland situations), and the Fritillaries, the dominant colour of these insects being a rich brown. Of the "blues" addicted to woodland Mr. Menzies showed the rare Purple Hairstreak which has the habit of flying round oak trees. Lastly in the woodland series was the Wood White, the smallest British "white".

The second group, with a less well marked habitat preference, included the Large Tortoiseshell, Red Admiral, Comma, High Brown and Duke of Burgundy Fritillaries, Brown and White Letter Hairstreaks, Brimstone and Green Veined White butterflies. All of the above species, except the Heath Fritillary have been found on Bookham Common which was visited by the Society last summer.

The Purple Emperors exhibited had been bred out by Mr. Menzies from larvae found near Goodwood, Sussex, and in connection with this species he mentioned its high flying habits and addiction to carrion, a feature of the insect's behaviour made use of by unprincipled collectors. Mention was also made of the increase over recent years of the once scarce White Admiral and Comma butterflies; and the reverse situation in the case of the Large Copper, which from being common is now an extreme rarity.

Several grasshoppers and crickets were shown, including the House Cricket, known to be established in the boiler rooms of the North Middlesex and Hackney Hospitals!

Mr. A. Vince then produced a most intriguing display of plants showing adaptations in connection with insect pollination, and others modified for the insectivorous habit. He showed the meeting a large species of Mexican Butterwort (*Pinguicula*) having large pale green rosettes of leaves studded with sticky glands to which the partly digested remains of several gnats adhered. The digestive processes of the Sundews (*Droseraceae*), Mr. Vince points out, were first investigated by a Bart's man, Dr. Lauder Brunton, at the request of Charles Darwin (who also numbers among the ranks of medical students who have had an interest in natural history!). Mr. Vince was also able to show what was probably one of the most fascinating exhibits of the evening in the shape of a living plant of the well known Venus Fly Trap. Despite the cold journey from North London the "traps" worked with uncanny precision when gently stimulated with a pencil point—no handy fly victims being around at the time of the meeting! A pickled specimen of the famous "Darwin" orchid was produced, known for the fact that the great biologist foretold the existence of a moth, needed for the plant's pollination, with a tongue eighteen inches long and capable of reaching the nectary at the bottom of a very long spur. The moth was in fact discovered after Darwin's death. Other specimens included a remarkable orchid (*Coryanthus speciosa*) with a complex pollination apparatus, Mr. Vince assured the meeting that they were seeing the only representative plant of this species in the country.

Mr. I. Roberts followed by giving a brief account of his bird-watching activities on Hampstead Heath, giving a very nicely arranged description of the common Heath birds, their population density, and times of

appearance and of breeding. He also compared his observations with those of earlier workers and made mention of some of the rarer birds that have been seen on the Heath from time to time.

Finally Mr. E. R. Nye showed representatives of three families of biting flies, of these the most interesting and rarely seen was a species parasitic on members of the swallow

family of birds. The insect showing extreme flattening, a character shared by many ectoparasitic arthropods, well developed claws and vestigial wings. The specimen shown had been taken from a House Martin which had also been heavily infested with mites, a common feature of many wild birds.

The meeting closed after a general discussion arising out of the various exhibits.

### Births

**ANDREWS.**—On January 27, to Daphne, wife of Dr. B. E. Andrews, a daughter (Susan Katherine).

**BOWEN.**—On February 7, to Helen, wife of Dr. Ronald Bowen, a son.

**BUNTING.**—On February 1, to Pauline, wife of John Bunting, a son.

**DROWN.**—On January 30, to Freda, wife of Dr. Geoffrey Drown, a daughter (Avril Rosemary).

**GREENHALGH.**—On February 4, to Mary, wife of Dr. George Greenhalgh, a son (Nigel John).

**LASCELLES.**—On January 26, to Evelyn Mary, wife of F/O Brian Lascelles, a son (Martin Christopher).

**LATTER.**—On February 1, to Priscilla, wife of Dr. Kenneth Latter, a son.

**MONCKTON.**—On February 11, to Jean, wife of Dr. George Monckton, a son.

**STANTON.**—On February 4, to Angela, wife of Dr. T. J. Stanton, a daughter (Sarah Elizabeth), a sister for James.

**STEPHENS.**—On January 24, to Barbara, wife of J. P. Stephens, M.Chir., F.R.C.S., a daughter (prematurely).

**TERRY.**—On January 27, at Illinois, U.S.A., to Elizabeth, wife of Dr. Richard Terry, a daughter (Elizabeth), a sister for Richard and Christopher.

**WOOLF.**—On February 14, to Betty, wife of Dr. Desmond C. Woolf, a son, a brother for Michael.

### Engagement

**PAROS—SPINKS.**—The engagement is announced between Norman Leonard Paros and Margaret Elizabeth Spinks.

### Marriages

**LIPMAN COHEN—FROOMBERG.**—On February 1, Dr. Eric Lipman Cohen to Joyce Froomberg.

**JONES—ARMSTRONG.**—On October 16, at Exmouth, Dr. John Morris Jones to June Bryce Armstrong.

### Deaths

**CASTELL.**—On January 1, Samuel Percy Castell, aged 61. Qual. 1918.

**JONES.**—On January 9, Cecil Meredyth Jones. Qual. 1912.

**PALMER.**—On February 26, Charles Spencer Palmer, aged 86. Qual. 1892.

**ROBINSON.**—On February 11, Richard Deane Robinson, aged 48. Qual. 1928.

**TREHERNE.**—On January 20, Sir Francis Treherne, aged 96. Qual. 1881.

### Royal College of Physicians

Sir Weldon Dalrymple-Champneys, Bt., has been appointed representative of the College on the Health Congress of the Royal Sanitary Institute.

### Royal Faculty of Physicians and Surgeons of Glasgow

Prof. A. A. Miles delivered the Finlayson Lecture at the Royal Faculty of Physicians and Surgeons, Glasgow, on February 9.

### University of Oxford

Prof. W. E. Le Gros Clark, F.R.S., has been appointed representative of the University at the third Pan-African Congress on Prehistory, to be held at Livingstone, Northern Rhodesia, in July, 1955.

### University of Sheffield

Lord Adrian will receive the honorary degree of D.Sc. on June 29, 1955.

### University of Hull

Lord Adrian will receive the honorary degree of D.Sc. on July 19, 1955.

### Appointment

Dr. Edward Cullinan has been appointed Honorary Consulting Physician to the Royal Hospital, Chelsea.

### Changes of Address

**DR. AND MRS. T. H. G. SHORE** to Mayfield, Maidencombe, Torquay.

**MR. S. FARRANT RUSSELL, F.R.C.S.,** to 66 Goddington Lane, Orpington, Kent.

**MR. R. H. PARAMORE, F.R.C.S.,** to Rose Cottage, Thursley Road, Elstead, Nr. Godalming, Surrey.

## SPORT

### RUGBY

#### Bart's v. O. Rutlishians

The Hospital kicked off and were soon defending desperately. The Old Boys were awarded three penalties in almost as many minutes, but none were successful.

The Hospital suddenly appeared to wake up and the Old Boys' line was seen in danger, many good movements just failing through poor finishing. After a good three-quarter movement, Lammiman went over for an unconverted try. The only other score in the first half was a try for the Old Boys and a good penalty goal taken by Scott-Brown.

Half-time: Barts 6, Old Rutlishians 3.

In the second half, play continued at a fast pace, both sides playing some good rugby. No further score came until just before the end of the match when the Old Boys scored a good try after practically every member of the team had handled the ball.

More decisive tackling and better covering by the Hospital would not have allowed this try which won the match.

Final result: Bart's 6, Old Rutlishians 8.

#### Hospital Cup 1st Round

##### Bart's v. Kings at Richmond, February 1

Drawn 3 - 3 pts.

Fresh from their fine win over O.M.T. and with strong support on the touchline, Bart's took the field to give their most disappointing display this season, against an underrated Kings XV. They began well enough and pressed the Kings line with speed and confidence, and soon Cohen scored an unconverted try.

From this point Bart's slowed down, and Kings gradually moved towards an ascendancy, Bart's, beaten in both scrum and line-out, showed little fire and determination, and not even a penalty goal by Farrell could rouse them from their lethargy. In the final minute a penalty was awarded to Kings on the twenty-five line and immediately in front

of the posts. Farrell took the kick amid an expectant silence only to miss the post by a foot, and thus Bart's lived to fight another day. Only Phillips, Mackenzie and Thomas came out of this game with credit, about which the less said the better.

**Team.**—B. W. Badley, D. A. Lammiman, J. K. Murphy, I. Neely, M. R. Phillips, G. Scott-Brown, L. Cohen, I. Dobson, I. Benedikz, F. I. Macadam, M. A. H. Graham, D. W. Roche, L. Thomas, J. S. T. Tallack (Capt.), J. C. Mackenzie.

#### Hospital Cup (Replay)

##### Bart's v. Kings

Won 13 - 3 pts.

Conditions were similar to those which prevailed in the previous tussle between the two sides, except that the proportions of the supporters were now reversed, Kings being well in the majority. Bart's won the toss and elected to play against the wind. Play commenced at a much slower pace than is usual in Cup rugby, and was almost entirely confined to the Bart's half for the first twenty-five minutes. It was during this period that the Kings pack was broken, and when play was eventually transferred to the other end, Scott-Brown scored near the posts with a typical break-through. The try was converted easily by Laurie Thomas.

Kings came back strongly for a time and Farrell succeeded in landing one of his many attempts at goal with the penalty kick.

After half-time, almost all the attacking was carried out by Bart's, who now established themselves comfortably in the Kings' half, and only some fine play by Harries, the Kings' outside-half, kept the score down. His activities were severely limited by the magnificent play of Mackenzie, who in both cup games has shown form worthy of his reputation.



1st XV which twice drew with St. Thomas's at Richmond before the 2nd Replay

Left to right:— Back Row: E. J. D. Gawne, F. J. Macadam, G. Scott-Brown, D. W. Roche, J. C. Mackenzie, J. Dobson, J. Benedikz, J. K. Murphy. Sitting: B. W. Badley, L. Cohen, J. S. T. Tallack (captain), D. A. Lammiman, R. M. Phillips. On ground: J. Neely & L. Thomas.

About twenty minutes from time some over-enthusiastic play by Kings resulted in a penalty to Bart's which Laurie Thomas kicked with precision and confidence.

Kings then came back strongly, and a dangerous attempt by Harris on the Bart's right only just failed. The hospital, however, soon returned to the attack, and further pressure resulted in Weely scoring another try after a grand run. Thomas again converted, and Bart's ended worthy winners.

**Team.**—B. W. Badley, D. A. Lammiman, J. Neely, M. Phillips, J. Plant, G. Scott-

Brown, L. Cohen, J. Dobson, I. Benedikz, F. I. Macadam, J. S. T. Tallack (Capt.), D. W. Roche, L. Thomas, M. Sleight, J. C. Mackenzie.

**Bart's v. Old Paulines  
February 12, at Chislehurst  
Won 9 - 8 pts.**

Atrocious conditions were only relieved on this day by an almost clear sky, and weak sunshine. The ground lay under half an inch of snow as a Bart's side, tired after a

sreuous match against Kings the previous Wednesday, took the field.

Old Paulines lost the toss and Bart's, as usual, commenced to play uphill in the first half. The opening stages were similar in many respects to the majority of games at Chislehurst this season with Bart's being hard pressed for about the first twenty minutes. Old Paulines, however, failed to take advantage of the situation, and when, finally, Bart's broke away, Thomas kicked a typical penalty goal, and then repeated the effort about ten minutes afterwards. Bart's then continued to press, but eventually the Old Boys broke out and scored with a fine try on the Bart's left.

In the second half, Bart's soon realised that the ball was too slippery to be handled by the backs, and play mostly took the form of some excellent forward rushes towards the Old Paulines' line. Several of these almost brought tries, and one culminated in Thomas touching down. The kick failed.

Old Paulines again returned to the attack, and again scored a further try which was converted. The closing stages ended with the Old Paulines defending their line stoutly against intensive Bart's pressure. The game was a great personal triumph for Laurie Thomas, who scored all nine points for Bart's. It was the hospital's sixth successive game without defeat.

**Team.**—B. W. Badley, D. A. Lammiman, J. Murphy, M. Phillips, J. Plant, R. R. Davies, L. Cohen, J. Dobson, J. Benedikz, F. I. Macadam, J. S. T. Tallack (Capt.), D. W. Roche, L. Thomas, E. F. D. Gawne, J. C. Mackenzie.

**Hospital Cup 2nd Round  
February 15, at Richmond  
St. Bart's v. Thomas's  
Drawn 0 - 0 pts.**

This, the first of the matches with St. Thomas's, might be described as the battle of the packs. From the outset it became clear that the winging forwards on both sides were much too good for the backs they were marking and both packs invariably found that they lost ground when heeling from a set scrum. One would have thought that such a state of affairs would be disadvantageous to Bart's, who were well out-weighted in the forwards. This, however, was not the case, for after the first ten minutes the forwards were able to push back the St. Thomas's pack in the set scrums. In the line-out, Roche

and Gawne were able to give Bart's a fair share of the ball despite the great height and ability of Maunfield, whilst Benediciz ensured possession in the tight. In the loose, Bart's forwards were all magnificent, and by the end of the game had begun to dominate the play. This was made possible by playing together, and a splendid return to form of Macadam and Roche. Led by Tallack, the pack seemed to be tireless, and looked as though they could have played on long after the whistle. Two other features of the forward play must be mentioned, the classical covering of Gawne, who was always in the right place at the right time, and the great play of Mackenzie, who was a great trouble to opposing backs.

It was unfortunate that the backs could not make so much use of the ball, although Scott-Brown managed to break through near the end only to be pushed off the ball. In the first minute, Lammiman and Badley almost brought victory, but failed a yard from the line.

A great exciting game, even if the rugby was not of a very high standard.

**Team.**—B. W. Badley, D. A. Lammiman, J. Neely, M. Phillips, I. K. Murphy, G. Scott-Brown, L. Cohen, J. Dobson, J. Benediciz, I. Macadam, J. S. T. Tallack (Capt.), D. W. Roche, L. Thomas, E. F. D. Gawne, J. C. Mackenzie.

**Hospital Cup 2nd Round  
1st Replay, February 28, at Richmond  
Drawn 3 - 3 pts.**

Of all the cup matches this year, this was undoubtedly Bart's best performance, and it would seem that only fate prevented them from winning. The forwards again played a great game, and provided the backs with ball almost continually, and the three-quarters made many impressive attacks which often only just failed in the face of a deep and resolute defence.

Bart's attacked right from the start and pressed for about fifteen minutes throughout which time a score seemed to be inevitable. This, however, was not to be until quite near the end of the game, when the St. Thomas's full-back fumbled a kick ahead, and was caught in possession by Laurie Thomas, who took the ball from him and dived over for an unconverted try. Victory looked almost certain when from the third of three penalty kicks taken in injury time, St.



Thomas's equalised and the match was again a draw.

Even the most earnest St. Thomas's supporter had to admit their good fortune, especially when Bart's lost Benedicz with a grievous knee injury during the second half. Despite this, our forwards continued to press and obtain the ball thanks to some magnificent hooking by Ian Macadam.

Special mention must be made of Lamman, who played what was probably his best game for Bart's, his breaks in the centre being a delight to watch, also Mike Phillips, who is always good. John Mackenzie, inspired both forwards and backs by his great form, and John Benedicz's hooking and play in the loose has been above reproach.



Lester Cohen in action just before his injury.

**Team.**—B. W. Badley, D. A. Lammiman, J. Neely, R. M. Phillips, I. K. Murphy, G. Scott-Brown, L. Cohen, J. Dobson, J. Benedicz, F. J. Macadam, J. S. T. Tallack (Capt.), D. W. Roche, L. Thomas, E. F. D. Gawne, J. C. Mackenzie.

**Hospital Cup 2nd Round  
2nd Replay, March 4, at Richmond  
Lost 3 - 6 pts.**

This was Bart's most heartbreaking defeat of all their matches for some years. On taking the field, one could hardly believe that

they could meet defeat against a team who had never in one hundred and sixty minutes' rugby looked like crossing the Bart's line. Bart's can certainly consider themselves most unlucky, although St. Thomas's played better rugby than previously.

As in the previous two games the match started with defences well on top and most of the ground gained by both sides was by the forwards. An exception to this, however, was the great run by Lammiman, who ran almost the length of the field only to be pulled down about a yard from the line.

Bart's were the first to score after a St. Thomas's kick had been charged down, and Mackenzie gained possession and made a fighting run to score an unconverted try. This lead, however, was short-lived for St. Thomas's came back strongly and from a scrum on the Bart's line, Skeet received an inside pass and just got over the line. St. Thomas's then went ahead after some hard pressure by Bart's. St. Thomas's heeled on their own twenty-five line, and the ball travelled to Skeet on the wing, who ran the length of the touchline to score after evading three half hearted tackles which would be a disgrace to the 'B' XV.

Soon after half-time, Cohen was carried off, and with him went all certain chance of Bart's victory. Laurie Thomas did all that could be asked of him, but the back division could not get going. In the closing stages, Scott-Brown almost got through but failed to pass, and an easy penalty kick in the closing minutes just went astray. Thus was lost one of the best chances of winning the cup for many years.

**Team.**—B. W. Badley, D. A. Lammiman, J. Neely, M. Phillips, J. K. Murphy, G. Scott-Brown, L. Cohen, J. Dobson, J. Macadam, B. Lofts, J. S. T. Tallack (Capt.), D. W. Roche, L. Thomas, E. F. D. Gawne, J. C. Mackenzie.

**A XV. Hospital Cup. 1st Round  
February 2, at Denmark Hill  
Won 6 - 0.**

Bart's looked a perfect side this day, and the whole team played as if they had been playing together for more than was actually the case.

They started by attacking immediately, and kept up a continual pressure on the Kings' line. The ball was quickly heeled by the forwards, and beautifully handled by

backs Berry, Rees-Davies, Plant and Worthy. A score was inevitable, and this came after a bout of passing in the backs with a finishing burst by John Worthy.

Bart's continued to spend nearly all the game in the Kings' half, and went further ahead through a fine penalty goal by Walton.

Subsequently, Kings' never looked like scoring and spent most of the game defending against a very polished Bart's side.

**Team.**—W. Walton, J. Williams, J. Plant, J. Worthy, J. Laurent, R. Rees-Davies, W. Berry, D. Downham, A. Lyton, B. Lofts, K. E. A. Norbury, J. Creightmore, P. D. Mulcahy, M. Sleight, M. Thomas.

**A XV. Hospital Cup, 2nd Round  
St. Bart's A XV v. St. Thomas's A XV  
At Cobham  
Won 3 - 0 pts.**

Conditions were so atrocious on this day that one could only feel sympathetic towards the shivering thirty players who took the field. The ground was sodden and it was snowing hard.

St. Thomas's kicked off up a slight slope and into a moderate wind. They were soon pressing hard and for the first twenty minutes looked the better side. It was fortunate for Bart's that St. Thomas's could not press home their attacks at this stage, thanks to some fine work by Berry, and the fact that they could not kick any of four penalties which they were awarded.

As the game developed, however, the Bart's backs began to look more dangerous, and a fine run by Owens carried play into the St. Thomas's twenty-five. Following this, St. Thomas's were penalised, and Walton kicked an easy goal. Bart's continued to press, mainly through their backs and wing forwards, Mulcahy and Howard Thomas.

About five minutes after the interval, Bart's lost Berry with a leg injury and Howard Thomas was moved to scrum half. This misfortune, as is customary, put new life into the Bart's pack, who subsequently more than held their own in the forward battle which developed in the final stages.

Special mention must be made of Berry, who saved many awkward situations; Rees-Davies, now becoming a polished player, and Walton, who played a magnificent game, his touch kicking and fielding being a delight to watch.

**Team.** W. Walton, J. Williams, J. Owens, I. Worthy, I. Laurent, R. Davies, W. Berry, B. Lofts, W. H. M. Jewell, J. Creightmore, K. E. A. Norbury, P. D. Mulcahy, M. Sleight (Capt.), H. Thomas.

#### BOAT CLUB

##### A Beginners' VIII v. Guy's Beginners' VII February 23

The Bart's crew were all novices last term, and have been rowing together in an VIII since January. The race was from the mile post to the University stone. Bart's went off at the higher rating and after half a minute had taken one-third length. But not until they had this lead did they settle down and look the better crew. Guy's fought back strongly, but Bart's drew steadily away to win by two lengths.

After the race, both crews adjourned to London Rowing Club for refreshment and for dinner later in the evening.

The fixture has done both clubs a great deal of good in encouraging beginners: it is hoped to make it an annual event.

Crew.—A. Geach, bow; 2, C. Wood; 3, P. Weaver; 4, J. Chalstry; 5, G. Hall; 6, D. Peebles; 7, J. Bartlett; M. Besser, stroke; R. C. Birt, cox.

#### SAILING CLUB

The season at Burnham will begin at Easter. It is hoped that, in spite of inclement weather earlier on during the fitting out, all the boats will be launched and ready to sail by then. Bunks at the Club-house this year can be reserved by informing the porters at College Hall.

The Bart's Sailing Club Regatta will be held, as last year, in the middle of May. It will probably be a three-day meeting open to the members of the Students' Union, all of whom are cordially invited to come and take an active part in cruising and racing on the Crouch.

#### CROSS-COUNTRY CLUB

The year 1955 has seen what promises to be a revival of cross-country running in the Hospital—a revival which is long overdue. Since 1950 the Club, as such, has been non-existent; but one or two individuals have been running with the United Hospitals Hares and Hounds during this period.

Last year, by fair means and foul, we managed to produce a team of five runners for the Inter Hospital Championships and we finished fifth in a field of six teams.

This year, largely due to a good response from Charterhouse Square, we got together a team of seven runners, and towards the end of January light training was started. On February 2nd the team was "blooded" in a six-mile race in Hyde Park against St. Mary's and the London Hospital—we were well beaten by St. Mary's; but with C. P. Roberts finishing second and D. M. Stainton-Ellis in fourth position we got the better of the London Hospital by five points, and this result produced in the team an incentive to train harder.

On February 19, at Chingford, 54 runners comprising nine teams lined up for the start of the Inter Hospital Championships, which was run over a five-and-a-half mile course in Epping Forest. The frost, ice and snow made conditions underfoot rather treacherous, but all 54 runners completed the course; and for the third successive year (this time with Roger Bannister) St. Mary's won quite easily. King's College Hospital were runners-up, and Bart's finished a creditable third. Our first man home was C. P. Roberts, who ran very well to finish in fourth position—he was ably supported by D. M. Stainton-Ellis, R. Thomson, J. Lewis, B. Hill, M. Sime and J. A. Stainton-Ellis.

It is encouraging that four members of this team are preclinical students, and they will provide the nucleus of next year's team; but before we can hope to win the Championship we shall need several new and keen additions to the Club.

#### AWARDS

##### HERBERT PATERSON MEDAL IN BIOCHEMISTRY

1955

Awarded to

D. J. TOOBY

Prox. Access.: J. Townsend

##### HARVEY PRIZE

1955

Awarded to

J. TOWNSEND

Prox. Access.: A. J. H. Ellison

##### SENIOR SCHOLARSHIP

in

##### ANATOMY, PHYSIOLOGY & BIOCHEMISTRY

1955

Awarded to

D. J. TOOBY

Highly Commended: J. Townsend

##### FOSTER PRIZE

1955

Awarded to

P. FARREN

D. J. TOOBY

(aeq.)

Certificates: J. M. Thwaites, J. Martin

##### BRACKENBURY SCHOLARSHIP IN MEDICINE

M. E. STALEY

Prox. Access.—M. J. Lefford

##### BRACKENBURY SCHOLARSHIP IN SURGERY

R. A. STROUD

**MATTHEWS DUNCAN MEDAL AND PRIZE**

M. J. WITT  
Prox. Access. — N. L. Browse

**KIRKES SCHOLARSHIP AND GOLD MEDAL**

J. G. EDWARDS  
Prox. Access. — V. G. Edwards

**BURROWS PRIZE**

T. A. BOXALL

**WALSHAM PRIZE**

R. M. BUCKLE, A. P. WYATT, acq.

**WILLETT MEDAL**

D. A. O. CAIRNS  
Prox. Access. — W. G. Harris, A. P. Wyatt, acq.

**ROXBURGH PRIZE**

J. B. DAWSON, V. G. EDWARDS, acq.

**RECORD REVIEWS****RAVEL**

*Bolero.*  
*La Valse.*

**DUKAS.**

*L'apprenti Sorcier.*

**HONEGGER.**

*Pacific 231.*

Paris Conservatoire Orch. cond. by Ernest Ansermet. Decca LXT 5004. Price 36s. 5½d.

One cannot imagine anyone wishing to play all this record at one sitting. The Ravel pieces are a popular concert choice, but one cannot help sympathising with the late Constant Lambert when he complained that he "Tired of the insistent rhythm of *La Valse* before the end, and that of the *Bolero* very near the beginning." The former piece allows great variation in tempo, and Ansermet is clearly more interested in shedding light on every detail of orchestral texture, rather than leaving the listener breathless. In this he is helped by the Paris Orchestra, which responds with astonishing virtuosity. This is apparent in the closing bars, where many conductors only succeed in creating a cacophony! The slower tempo is more difficult to justify in the *Bolero*, though there is some fine individual playing. Ansermet's approach seems

out of sympathy with the music. The Sorcerer's Apprentice is the most successful of all. Ansermet, by his deliberate approach to the music, brings out all the finer details of the scene. Honegger's *Pacific 231*, the shortest of the four pieces is a very evocative picture of a large passenger engine pulling out of a station and gathering speed!

**SCHUBERT**

*Symphony No. 5 in B flat.*  
*Symphony No. 8 in B minor (unfinished).*

Vienna Philharmonic Orchestra cond. by Karl Böhm. Decca LXT 2998. Price 36s. 5½d.

This record is thoroughly recommended. Schubert's fifth must surely stake a strong claim to be regarded as the finest symphony ever composed by anybody in the second decade of life, especially when it is played as persuasively as this. The string playing is first-class and the music is allowed to flow as it should. The better-known "Unfinished" is also very well done, even though the tempi in the first movement are pulled about a little with a consequent loss in spontaneity. However, this is only a small criticism of an outstanding record.

**DUKAS**

*Poeme Danse. La Péri.*

**RACHMANINOV**

*Symphonic Poem: Isle of the Dead.*

Paris Conservatoire Orch. cond. by Ernest Ansermet. Decca LXT 5003. Price 36s. 5½d.

Both these pieces deserve to be better known. The Rachmaninov symphonic poem is inspired by a picture of the Swiss nineteenth-century artist Böcklin. It conveys an impression of stillness in keeping with the picture. Those who are fond of rich romantic music will revel in this, but it may

not be to everyone's taste. The Dukas work is a particularly vivid creation of an oriental allegorical myth with a wandering prince as its subject. Iskendar allows his lust for the fairy, who holds the Flower of Immortality, to deter him from obtaining the Flower. Having fulfilled his desire, he decides to renounce his life. The scoring with its Eastern tone colour, reminiscent of Rimsky-Korsakov, is always stimulating. The erotic frenzy of the climax is most effective. Ansermet clearly has a firm understanding of Dukas' music; and these two recordings will do much to increase the popularity of the composer. The recording must have presented great difficulties of balance. Its success reflects credit on all concerned.

E. G. WOOSTER.

**BOOK REVIEWS**

*Extracellular Fluid* by James L. Gamble. Harvard University Press. Sixth edition, pp. 165, 1954.

There have been abortive attempts at fluid and salt replacement therapy more than 100 years ago. In the 1830s Dr. O'Shaughnessy published a letter in *The Lancet* stating that the change of blood in Cholera was one of water and salt loss. Dr. Latta followed this up by a report on some wonderful cures of people sick with Cholera in whose basilic vein he had poured several pints of a solution containing 0.4% NaCl and 0.3% NaHCO<sub>3</sub>. However it could not be accepted that Cholera was caused by a lack of alkali, and at a time when Medicine concerned itself with aetiological diagnosis and therapy, the concept of an auxiliary therapy was not yet acceptable. We owe the development of replacement therapy of salt and fluid as we practice it today to the Paediatricians. Fluid therapy itself was well known in India at the beginning of this century when it was used in the treatment of Cholera. The conception of an extra- and an intracellular fluid we owe to Claude Bernard. Virtually all the specific changes in these fluids following dehydration by diarrhoea had been carefully analysed 100 years ago by Carl Schmidt, a pupil of Liebig's who was Professor of Physiological Chemistry at Dorpat University in Estonia. Schmidt's pupil Bunge who became Professor of Physiological Chemistry at Basle elaborated fully the extracellular role of Sodium. Nevertheless the proper evaluation of the changes in the composition of body fluids in disease and their rational

reversal by a replacement therapy was the work of Paediatricians. Foremost among them was James L. Gamble of the Department of Pediatrics at Harvard. He belongs to the generation which discovered that infantile diarrhoea was accompanied by severe acidosis, and which disentangled uraemia of toxemia from uraemia of dehydration. His clear disposition of the "Chemical Anatomy" of extracellular fluids, of the "Companionship of Water and Electrolytes in Organisation of Body Fluids" has had a very great influence on present day teaching of Chemical Pathology.

This syllabus of lectures on the chemical anatomy, physiology and pathology of extracellular fluid was published first in 1942 and has now appeared in its sixth edition. It is full of new classical graphs, which have been reproduced in many text books. The author devised a description of concentrations of cations and anions as companion columns where milli-equivalents of acid and alkali balance each other. His Harvard students have called these illustrations "Gamble Grams" and they have become known by this name all the world over. For the time being the subject is probably taught more suitably in lectures and tutorials. This book is therefore perhaps not one which all students must necessarily possess. But they should at least all borrow it at one time or another from the Library, because it will be invaluable in supporting the teaching they have received.

H. LEHMANN.

**Physiotherapy in Some Surgical Conditions**, by Joan E. Cash, B.A., M.C.S.P. Faber and Faber. 21s.

This book covers in some detail the main surgical procedures in which physiotherapy may be ordered. It should be of real use, not only to physiotherapists, but also to many members of the medical profession who wish to know the main types of treatment by physical means which may, or should, be ordered in surgical conditions.

The various chapters are carefully planned and clearly set out and cover a remarkably wide field: burns, abdominal, chest and neurosurgery, fractures, joint and soft-tissue injuries are all discussed and the rationale of the main physiotherapy treatments given in outline, also the prevention and treatment of the common post-operative chest and vascular complications.

The electro-diagnosis and treatment of peripheral nerve injuries might, with benefit, have been considered in greater detail and the dosage of ultra-violet light for wounds is rather conservative. These are minor criticisms of an excellent and most constructive book which should be a useful

reference book to many medical practitioners as well as physiotherapists.

TRUDA WAREHAM.

**The Foundations of Surgery**, by G. Perkins. Published by E. & S. Livingstone Ltd., pp. 236, price 10s.

Ever since the Introductory Course in surgery was started it has been a matter of great difficulty to persuade students to read a book on surgery whilst doing the course and so augment the information provided in the practical classes and lectures. Two factors have contributed to this situation. First, a not unnatural desire on the students' part to be rid of textbooks at least for a period and secondly, the lack of a suitable surgical textbook.

This deficiency has now been made good by the publication of Professor Perkins' small book. The wit, sagacity and teaching ability of the author find full expression in this readable book. The sentences are short and the style dogmatic so that

## BOOKS—NEW and VALUABLE

### ANTENATAL AND POSTNATAL CARE

By F. J. BROWNE, M.D., D.Sc., F.R.C.S. Ed. F.R.C.O.G. and I. C. McCLURE BROWNE, M.B., B.S., F.R.C.S. Ed., F.R.C.O.G. *New (Eighth) Edition.* 94 Illustrations. 37s. 6d.

### ESSENTIALS OF ORTHOPÆDICS

By PHILIP WILES, M.S., F.R.C.S., F.A.C.S. *New (Second) Edition.* 7 Coloured Plates and 393 Text-figures. 55s.

### GYNÆCOLOGY

By DOUGLAS MacLEOD, M.S., F.R.C.P., F.R.C.S., F.R.C.O.G. and CHARLES D. READ, F.R.C.S., F.R.A.C.S., F.R.C.O.G. *New (Fifth) Edition.* 551 Illustrations including 27 Plates in Colour. 80s.

### DISEASES OF INFANCY & CHILDHOOD

By WILFRID SHELDON C.V.O., M.D., F.R.C.P. *New (Seventh) Edition.* 18 Plates (6 in colour) and 213 Text-figures. 50s.

### ANATOMY

*Regional and Applied*  
By R. J. LAST, M.B., B.S., F.R.C.S., 309 Illustrations, many in colour. 55s.

### APPROACH TO CLINICAL MEDICINE

By R. H. MICKS, M.D., F.R.C.P. 8s. 6d.

### THE DIABETIC LIFE

*Its Control by Diet and Insulin*  
*A Concise Practical Manual for Practitioners and Patients*  
By R. D. LAWRENCE, M.A., M.D., F.R.C.P. *New (Fifteenth) Edition.* 19 Illustrations. 12s. 6d.

### MEDICAL BACTERIOLOGY

By Sir LIONEL WHITBY, C.V.O., M.A., M.D., F.R.C.P., D.P.H. and MARTIN HYNES, M.D., M.R.C.F. *Fifth Edition.* 92 Illustrations. 22s. 6d.

### ANAESTHETICS FOR MEDICAL STUDENTS

By GORDON OSTLER, M.A., M.B., M.R.C.S., D.A., (Eng.). *Second Edition.* 8s. 6d.

### TEXTBOOK OF GYNÆCOLOGY

By WILFRED SHAW, M.A., M.D., F.R.C.S., F.R.C.O.G. *Sixth Edition.* 4 Plates and 304 Text-figures. 27s. 6d.

### BIOCHEMISTRY FOR MEDICAL STUDENTS

By W. V. THORPE, M.A., Ph.D., F.R.C.S. *Fifth Edition.* 41 Illustrations. 22s. 6d.

### COMMON DISEASES OF THE EAR, NOSE AND THROAT

By PHILIP READING, M.S., F.R.C.S., *Second Edition.* 2 Coloured Plates and 38 Text-figures. 22s. 6d.

### AN APPROACH TO CLINICAL SURGERY

By G. H. C. OVENS, O.B.E., M.B., B.S., F.R.C.S., 118 Illustrations. 22s. 6d.

### CLARK'S APPLIED PHARMACOLOGY

*Eighth Edition.* Revised by ANDREW WILSON, M.D., Ph.D., F.R.F.P.S., and H. O. SCHILD, M.D., Ph.D., D.Sc., 120 Illustrations. 37s. 6d.

the over-critical might object to a tendency to over-simplification. Nevertheless "Surgery for Toddlers," to use the alternative title, contains a wealth of valuable information and is highly recommended to members of the "Infants' Class" and indeed to more senior students as well.

D. J. ROBERTSON.

**Demonstrations of Operative Surgery**, by Hamilton Bailey. 2nd Edition. Published by E. & S. Livingstone Ltd., pp. 387, illus. 538. 24s.

This book contains reports of a series of demonstrations given in the operating theatre. The first edition was primarily written for the benefit of nurses, for whom it is of great value. However, this edition has been revised to be of interest to medical students, general practitioners as well as nurses.

The author, with the aid of a number of contributors, has produced a most interesting book, which has variety and colour. Each demonstration is concise, well illustrated and gives a good description of the operation. It begins with a section on surgical instruments and the general principles; this is, perhaps, the least interesting of sections, but nevertheless essential to know. The following sections each deal with a number of different operations including the more common types and those which are not seen in the general hospital so frequently. The section on operations on the head and neck was excellent and the section on abdominal operations fully described. The presentation of the demonstrations bring out many points of interest and give the nurse much help and understanding.

There are over 500 illustrations which are extremely well chosen and the clear, direct approach to each subject makes interesting reading. The admirable printing and paper that the publishers have used add to the attractiveness of the book.

C. H.

**Modern Surgery for Nurses**. Edited by F. Wilson Harlow, M.B., F.R.C.S. Published by Heinemann. 27s. 6d.

New techniques are introduced into surgery and its allied branches faster than older methods are abandoned in some quarters, and if a textbook is to please everyone it has an inevitable tendency to enlarge, as "Modern Surgery for Nurses" has done in its new edition. This well-produced book is deservedly popular with nurses because they will almost certainly find in it a reference to any subject that they want to look up, especially if it is a description of an operation. Post-operative nursing is less well represented; for instance, the nurse would receive no help on nursing problems after abdomino-perineal excision of rectum.

The section on anaesthesia is full and good, and the author will doubtless consider a reference to chlorpromazine in the next edition. The chapter on radio-active isotopes is formidable, but nurses

in an atomic age must try to understand something of the substances with which they have to deal. It is pleasant to see that the old degrees of burns have disappeared, and that they are classified as superficial or deep. If more material has to be omitted in the next edition, it is suggested that the section on diabetic diets is more suited to a textbook on medicine; that the Fowler position is now never used in the way its author described; and that Burton's donkey should be consigned to a dishonoured grave.

MISS HECTOR.

**Heart Disease**, by Dr. G. Bourne. Published by Duckworth. 8s. 6d.

There has been in the past few years an increasing demand from the lay public for knowledge which will provide a simple and frank analysis of medical symptoms. In addition, it has always seemed to me incongruous that men should have such profound knowledge often of some intricate machinery while remaining ignorant of their own body functions. Their only reference book to date (of little help or consolation) has been an encyclopaedia!

Dr. Bourne, in a simple and factual account of Heart Disease, has applied his wealth of clinical experience in writing his book with a pleasing note of optimism: warranted particularly in heart disease or cardiac neurosis because of the good response to medical care and reassurance.

It is a characteristic of the cardiologist to deal firmly with functional symptoms, but Dr. Bourne has shown that this must be combined with a detailed explanation of these symptoms. Time does not allow adequate instruction of the patient in a busy clinic so that this book will be a valuable supplement. Perhaps this series will help appreciably to ease the burden of the practitioner and hospital staff, the patient having "healed himself" by its instructions.

J. P. THOMAS.

**Amphetamine in Clinical Medicine. Action and Uses**. By W. R. Brett, Leonard H. Howells and A. D. MacDonald. Published by E. & S. Livingstone Ltd., 78 pp., 7s. 6d.

Though separate textbooks on individual drugs are undesirable, an exception can be made in the case of amphetamine. It has considerable applications in clinical medicine and is being employed in ever-widening fields.

This little book deals concisely with the uses of amphetamine in several of these fields. There are particularly good chapters on the treatment of over-weight, fatigue and depression and intoxication by alcohol and the barbiturates. Further study of any of the subjects dealt with is aided by a full bibliography at the end of each chapter.

The book is easy to read and the student will find it contains much valuable information on subjects not stressed in the clinical curriculum.

M. W. S.

## H. K. LEWIS'S BOOKS FOR STUDENTS

Nearly Ready Tenth edition With 8 coloured plates and 215 illustrations in the Text 8½" x 5½"  
£1 10s. 0d. net, postage 1s. 6d.

### COMMON SKIN DISEASES

By A. C. ROXBURGH, M.D., F.R.C.P., late Consulting Physician for Diseases of the Skin,  
St. Bartholomew's Hospital, etc.

#### LANDMARKS AND SURFACE MARKINGS OF THE HUMAN BODY

By the late L. BATHE RAWLING, M.B., B.C. (Cantab.),  
F.R.C.S. (Eng.). Ninth Edition. Revised by J. O. ROBINSON,  
F.R.C.S. With 36 illustrations. 8½" x 5½".  
12s. 6d. net; postage 7d.

#### INTRODUCTION TO GENERAL PRACTICE.

By D. CRADDOCK, M.B., Ch.B., D.Obst. R.C.O.G. With a  
Foreword by Sir W. HENEAGE OGILVIE, K.B.E., F.R.C.S.  
8½" x 5½". £2 8s. net.

#### THE CLINICAL EXAMINATION OF THE NERVOUS SYSTEM

By G. H. MONRAD-KROHN, M.D. Oslo, F.R.C.P. Lond.  
Professor of Medicine in the Royal Frederick University,  
Oslo, etc. Tenth Edition. With 165 illustrations. 8½" x 5½".  
£1 16s. net, postage 1s. 3d.

#### A TEXTBOOK OF MEDICINE FOR NURSES

By J. W. JOULE, M.D. M.R.C.P., Physician, Kingston Hospital.  
46 illustrations. 8½" x 5½". £1 10s. net, postage 1s. 3d.

#### FRACTURES AND DISLOCATIONS IN GENERAL PRACTICE

By JOHN P. HOSFORD, M.S. (Lond.), F.R.C.S. Second Edition.  
Revised by W. D. COLTART, F.R.C.S. With 87 illustrations.  
8½" x 5½". £1 1s. net, postage 8d.

#### THE DIAGNOSIS OF THE ACUTE ABDOMEN IN RHYME

By "ZETA". With drawings by Peter Collingwood. Third  
Edition. 7s. 6d. net, postage 3d.

#### BIOCHEMICAL INVESTIGATIONS IN DIAGNOSIS AND TREATMENT

By J. D. N. NABARRO, M.D., M.R.C.P., 8½" x 5½". With  
illustrations. £1 5s. net, postage 8d.

#### SURGERY FOR NURSES

By HAMILTON BAILEY, F.R.C.S., and R. J. McNEILL LOVE,  
M.S. (Lond.), F.R.C.S., Ninth Edition, 1234 illustrations (272  
coloured). 8½" x 5½". £1 5s. net, postage 1s. 3d.

LONDON: H. K. LEWIS & Co. Ltd. 136 GOWER STREET, W.C.1

## TO MEDICAL STUDENTS

Are you aware of the unique facilities offered by

## LEWIS'S LENDING LIBRARY

For a nominal subscription you can borrow any British or American work available in  
this country. Books may be kept as long as required or exchanged as frequently as desired.

### ALL BOOKS ARE OF THE LATEST EDITIONS

THERE ARE SPECIALLY REDUCED TERMS FOR MEDICAL STUDENTS

**LEWIS'S BOOKSELLING DEPARTMENT** has a large stock of students' textbooks and new  
editions in all branches of Medicine, Surgery and General Science of all Publishers.  
Foreign Books not in stock obtained to order. Catalogues on request.

The **SECOND-HAND DEPARTMENT** has a stock of recent editions. Old and rare books  
sought for and reported. Large and small collections bought.

In the **STATIONERY DEPARTMENT** there are Case-taking Systems (Cards or Sheets),  
Temperature and other Charts, Note-books, loose-leaf or bound, writing-pads,  
fountain pens, pencils, etc., and other requirements for Students.

London: H. K. LEWIS & Co. Ltd., 136 Gower Street, London, W.C.1

Telephone: EUSton 4282 (7 lines)

Telegrams: Publicavit, Westcent, London

# ST. BARTHOLOMEW'S HOSPITAL JOURNAL

Vol. LIX

MAY 1955

No. 5

## THE NEW REFECTORY

SINCE the beginning of January, the refectory has been closed whilst extensive renovations were carried out. This has resulted in some inconvenience to students, and in a previous editorial some worthy eating places around Bart's were suggested, but anyone who has seen the new refectory will agree that the end product amply justifies the trouble. The actual work occupied twelve weeks, the decorating of the entrance taking a short additional time, and the refectory was officially opened by Professor Christie on April 12.

The refectory has now been completely transformed from its former dark and gloomy appearance. By the judicious use of lighter colours in redecoration, and skilful reorganisation of the furniture, it is now bright and spacious, although the window space has not been altered. The colour scheme was selected by Miss Smith, of the College Office, and shows excellent taste.

The floor consists of one foot squares of red and beige tiled linoleum. The old hexagonal pillars have been cut down as much as possible, and are now square in shape and grey in colour. Three of the walls are painted in Victoria Grey, but the wall furthest from the entrance is very effectively painted in a Salting Green, with fleur de lys motif. As one enters the refectory, this wall stands out in a most attractive manner. It was regretted that the Bart's crest could not be used as the motif on this wall, but it was felt that black and white would not

harmonise with the other colours. The roof has been lined with acoustic panels painted white, and the diminution in noise due to this is remarkable. The occasional crash of falling crockery in the kitchen is now scarcely audible from the far end of the room. The windows are now flanked by green curtains of contemporary design. To remove the familiar refectory odour, a Ventaxia air extraction unit has been installed above the servery, and this had been screened by Reed-light glass, with primrose vitrolite enamelling.

The furniture has been entirely replaced. The tables are in light oak, and are Formica topped. They seat four to six people. The shelves under the tables have been so designed that it is almost impossible to place a tray in them. Small tables are provided at intervals on which trays should be stacked. It is hoped that this will considerably speed clearance by the waitresses. The chairs are also of light oak, with red seats. As a result of rearrangement, the seating capacity has been increased from 112 to 125. Shortly, three tables will be introduced at which it will be possible for anyone to have individual service for a fee of sixpence.

A sink will be installed by one wall, so that students can obtain their own supply of water. The lighting has now been changed to alternating current and tungsten bulbs installed. This has also helped to brighten the refectory considerably. It was felt that