VOLUME XXXVII WINTER 1968

THE ULSTER MEDICAL JOURNAL

PUBLISHED BY
THE ULSTER MEDICAL SOCIETY

CONTENTS

Fellows and Members of the Ulster Medical Society receive the Journal Free. Details as to subscriptions on back page.

CONTENTS

Fellows and Members of the Ulster Medical Society receive the Journal Free. Details as to subscriptions on back page.

THE ULSTER MEDICAL JOURNAL

NOTICE TO CONTRIBUTORS

1. Authors are reminded that concise and clearly expressed papers are those most welcomed by readers and by the Editorial Board.

2. Manuscripts should be typewritten with double spacing and with wide margins. They should be fully corrected, and contributors will be responsible for the payment of any sum charged for alteration in printer's proof in excess of ten shillings per sheet (16 pages).

3. References should be given as in the publications of the British Medical Association and in most other modern British journals. If contributors are uncertain of the correct abbreviation for the title of any journal, as given in the World List of Scientific Periodicals, they should give the full title.

4. Tables and illustrations should be reduced to a minimum, and should be sent detached from the typescript of the paper. Line drawings should be used whenever possible. All illustrations must be in a finished form ready for reproduction. Authors will be charged for all blocks at cost price. Half-tone blocks require to be printed on special art paper. Authors will be responsible for the cost.

5. Order for reprints must be given when the author returns the printer's proof. The cost of these may be obtained from the printers in advance.

6. Editorial communications should be sent direct to the Editor, Dr. J. E. Morison, D.SC., M.D., The Laboratory, Belfast City Hospital. The Editor will be glad to advise authors on the preparation of their manuscripts.

ADVERTISEMENTS

First advertising forms go to press thirty days in advance of the date of issue. In forwarding copy, time must be allowed for setting up and submitting proof. All communications for space must be sent to:

H. A. CRICK, 6a Victoria Avenue, Whitehead, Co. Antrim.
Telephone: Belfast 24807.

Mr. Crick has been appointed the sole representative of The Ulster Medical Journal.

DATES OF PUBLICATION

It is hoped to issue a Winter and Summer number each year in February and September.

THE ULSTER MEDICAL SOCIETY

P.O. Box 222.
Belfast City Hospital,
Belfast, 9.

Dear Sir (or Madam),

If you are not a member of the Ulster Medical Society, we would appeal to you to give the question of joining your consideration. The Society has been in existence since 1862, and has always been active in keeping its members interested in the advances in medical science. Meetings are held at intervals of a fortnight during the winter months, and papers are contributed by members and distinguished guests. Facilities are provided for doctors to meet informally afterwards and have a cup of tea. *The Ulster Medical Journal, the official organ of the Society, is issued to all Fellows and Members free of charge.*

May we, therefore, appeal to you to join the Ulster Medical Society, and so enable us to widen its influence and sphere of usefulness still further? A proposal form is appended: your proposer and seconder must be Fellows of the Society.

If you do not wish to become a member of the Society, will you consider entering your name as a subscriber to THE ULSTER MEDICAL JOURNAL? The subscription is fifteen shillings per annum, payable in advance to the Honorary Treasurer.

We remain,

Yours faithfully,

IAN FRAZER, *President.*
J. A. WEAVER, *Hon. Secretary.*
W. BINGHAM, *Hon. Treasurer.*

MEMBERS **£1. 1s.** (A Member is one who is less than seven years qualified. He or she will automatically become a Fellow seven years after qualification and be liable to the higher subscription rate.)

FELLOWS.—1 (a) Annual subscription of Fellows resident, practising or holding an appointment within ten miles of Belfast, **£3. 3s.**; (b) husbands and wives in the above category who are both Fellows will be entitled to pay a combined subscription of **£4. 4s.**; 2 (a) annual subscription of Fellows resident, practising or holding an appointment outside the above area, **£2. 2s.**; (b) husbands and wives in the above category who are both Fellows will be entitled to pay a combined subscription of **£3. 3s.**; 3, annual subscription of retired Fellows, provided that any Fellow who, by reason of retirement either through age or illness, is no longer engaged either in private practice or in salaried employment, shall be entitled, *on application*, to pay an annual subscription of **£1. 1s.** only, and provided always that such Fellow has previously paid to the Society a subscription at the current rate for an uninterrupted period of at least ten years, or during such time has been in practice or service abroad.

LIFE MEMBERSHIP—Fellows and Members shall be eligible to become Life Members, **£31. 10s.**

To DR. W. BINGHAM,
7 STRANGFORD AVENUE,
BELFAST, 9.

.....19.....

Dear Sir,

We nominate for $\frac{\textit{Membership}}{\textit{Fellowship}}$ *of the Ulster Medical Society—*

Name of Candidate .....

Postal Address .....

.....

Year of Qualification and Degrees .....

.....

Signature of Proposer .....

Signature of Seconder .....

EXCHANGES: Exchange journals and all relevant correspondence should be addressed to:
QUEEN'S UNIVERSITY MEDICAL LIBRARY,
INSTITUTE OF CLINICAL SCIENCE,
GROSVENOR ROAD,
BELFAST, 12,
NORTHERN IRELAND.

BOOKSELLERS: All correspondence, orders and payments for institutional and private subscribers, through booksellers, should be sent to:
THE HONORARY TREASURER,
ULSTER MEDICAL JOURNAL,
c/o QUEEN'S UNIVERSITY MEDICAL LIBRARY,
INSTITUTE OF CLINICAL SCIENCE,
GROSVENOR ROAD,
BELFAST, 12,
NORTHERN IRELAND.

SUBSCRIPTIONS: Individuals who are not members of the Society wishing to take out a direct subscription should send a banker's order for fifteen shillings payable to the Ulster Medical Society (Northern Bank, Shaftesbury Square, Belfast), Ulster Medical Journal account, to Dr. W. Bingham, 7 Strangford Avenue, Belfast, 9. This covers one volume (two numbers) of the Journal.

THE
ULSTER MEDICAL JOURNAL

PUBLISHED ON BEHALF OF THE ULSTER MEDICAL SOCIETY

Vol. XXXVII WINTER 1968 No. 1

FATHER AND SON – A TALE OF TWO CITIES

By SIR IAN FRASER, D.S.O., D.L., D.Sc.(Oxon.), F.R.C.S.

Presidential Address to the Ulster Medical Society, 19th October, 1967

I WOULD like to interest you for a short time tonight in the lives of two men – father and son. Their combined lives spanned last century – the father was born in 1800 and the son died in 1901. The father's work was for the most part done in Belfast whilst the most fruitful period of the son's life was spent in London – so in some ways it is a 'Tale of Two Cities'.

The father was a physician, the son a surgeon, and both held high office in this society and both were on the staff of the Belfast General Hospital – later the Belfast Royal Hospital – and now the Royal Victoria Hospital. Both were eccentric, or at least unusual, with their genes perhaps leading them in slightly different directions.

The son's portrait you have all studied many times in the great hall of the University, as sitting at an examination you chewed your pen and hoped for inspiration from it. The father's and son's busts on the other hand you should have seen as they have been on view for forty years in a public place not often visited. I wonder how many have seen them?

Henry MacCormac was born in 1800. It has never been possible to trace the exact record of his birth in the parish register. It has been said that the page was torn out for a very interesting reason that I cannot mention here. Another reason, possibly more likely, is that his birth was probably in the register of Clonfaecle Parish Church, Co. Armagh, and it is known that this register was destroyed in Dublin during the "troubles" of 1922. Henry's grandfather was a certain Cornelius MacCormac. He was a high ranking naval officer and he fell overboard and was drowned when straining after his "gold laced hat" which had been tossed overboard by the spanker boom; although the hat was retrieved Cornelius' body was never recovered. His grandmother also died at sea in perhaps a less exotic fashion as she was travelling from England to Ireland in a pacquet boat.

Henry was born in Carnan in the County of Armagh. He describes his grandfather's house with a mill nearby, and seeing the bags of corn being carried away.

His grandfather, Colonel Hall, was an extensive distiller whose daughter, Mary, Henry's father had married. They had a large family consisting of six boys and two girls. The father began business as a linen merchant with some £15,000, but his commercial "aptitudes were most unsufficing" – for he rode to hounds and kept open house. His free-handed generosity however came to a natural close, and he left his wife saddled with the maintenance of a large family on a life annuity of £40 – fortunately this had not been alienated. Henry saw his father seized with an apoplectic seizure, and remain to the end unaware of its terrible nature and its disastrous sequences. His mother's marriage allowance had already been swallowed up, and her near relatives occupied with their own family problems were unable to help, so his valiant mother began business herself, but, ignorant of its stern requirements and reared in affluence, she found the "proceeds unequal to her needs".

In those days linen merchants rode to market with pockets stuffed with guineas and bank notes. The buyers stood on steps or benches while the websters, a large crowd, tendered their wares below. Once the price had been agreed the seller was paid in cash at the merchant's office, usually a room in a local inn, after which he hied home. Henry remembers seeing one of these men coming home with a pistol in his holster and a sword slung by his side. Often the gentlemen of the cloth would dally too long at the inn and they were very dependent upon the sagacity of their horse to keep them in the saddle and bring them safely home. On one occasion Henry's father gave one of these humble sellers a seat home sitting behind him on his horse – however, he found later that his pocket book and the £80 that it contained had disappeared. It is interesting that Henry as a doctor many years later came upon the thief, then a very old man. Henry's mother and family moved to a large country house called Fairlawn, which was in the hands of caretakers since the owners were in England. They probably got it cheaply but the intrusion was greatly resented by the caretakers, who had to move out. He describes the house and its garden; the river, the small islands and the bridge still exist to this day. They lived here for a short time but Mrs. MacCormac had to move back to Armagh to start a school with the help of the two daughters. Although faced with innumerable difficulties they realised a hard earned competence as well as general goodwill and respect.

From here Henry moved to a large school, probably Armagh Royal School He has few grateful memories of school life, and those who ran the school knew nothing of "vital culture". The stick, the scourge, the ready cuff with vituperation more or less gross were the all too common retort. It was an endowed school and one of his teachers – afterwards a Fellow of a well known college – would have made a perfect figure for a "portrait of the Inquisition". Not content with the ordinary cane, the master used an iron rod! The headmaster, a pompous short-sighted Englishman, and his yet more pompous son allowed all this to go on. Henry did four years toil of the Eton Latin Grammar. If it was not from his school then it must have been from his mother that he got such a wonderful education and such a love of languages.

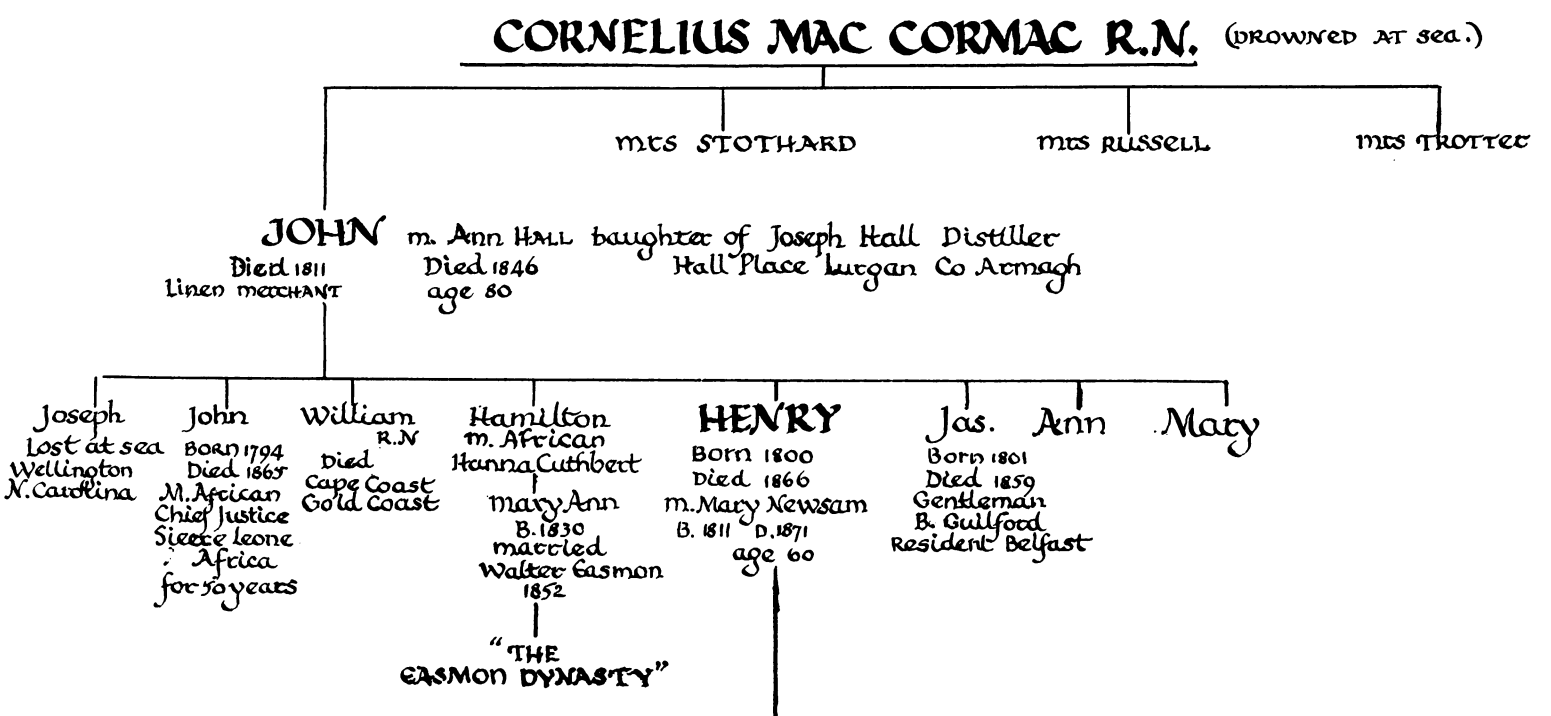
Having decided to become a doctor he undertook the necessary studies in Dublin, Paris, and Edinburgh. He often mentions his time in Paris and his work at L'Hôtel Dieu and the famous surgeon Dupuytren. In addition in Paris he attended

some lectures in chemistry. It was finally in 1824 that he obtained his M.D. with a thesis entitled "De Clabo Secalino" from Edinburgh University and became at the same time a Licentiate of the old Royal College of Surgeons of Edinburgh. Having been born in 1800, his age is the same as the year, which makes it easy for us to correlate his progress with his age.

TABLE I

HENRY (Father)		Year	WILLIAM (Son)	
	Born	1800		
		1810		
		1820		
	Qualified 1824			
	Appointed	1830		
	Professor 1837		1836 Born	
Active	Retired	1840		
Consultant	Professor 1848			
Practice		1850		
			1857 Qualified	
		1860		Surgeon
	1866		1864 Surgeon, Belfast	in Belfast
	Writer and	1870	General Hospital	
	Doctor to		1870 Franco Prussian War	
Retired	Asylum	1880		
	Died 1886		1871	
		1890		
			St. Thomas	Consultant
		1900	Hospital	Surgeon,
			1893	London
		1901	1893 Royal College	
			of Surgeons	
			South African War	
			1901 Died	

Early on we see his roving spirit developing, as immediately after qualifying he at once went off to Africa. It is said that he undertook from the Cape of Good Hope a long, tedious and dangerous overland journey up the West Coast of Africa as far as Sierra Leone. This journey has been described as even more dangerous and difficult than that undertaken by Livingstone. During this time it is said he nearly died from a severe attack of yellow fever, a disease which may have a death rate as high as 60 per cent. His object in getting to Sierra Leone was to see his older brother – John – who was a stipendary magistrate there, and


CORNELIUS MAC CORMAC R.N. (DROWNED AT SEA.)
MRS STOTHARD
MRS RUSSELL
MRS TROTTER
JOHN
Died 1811
Linen merchant
m. Ann HALL
Died 1846
age 80
daughter of Joseph Hall Distiller
Hall Place Lurgan Co Armagh
Joseph
Lost at sea
Wellington
N. Carolina
John
BORN 1794
Died 1865
M. African
Chief Justice
Sierra leone
Africa
for 50 years
William
R.N
Died
Cape Coast
Gold Coast
Hamilton
m. African
Hanna Cuthbert
Mary Ann
B. 1830
married
Walter Easmon
1852
"THE
EASMON DYNASTY"
HENRY
Born 1800
Died 1866
m. Mary Newsam
B. 1811 D. 1871
age 60
Jas.
Born 1801
Died 1859
Gentleman
B. Gullfood
Resident Belfast
Ann
Mary

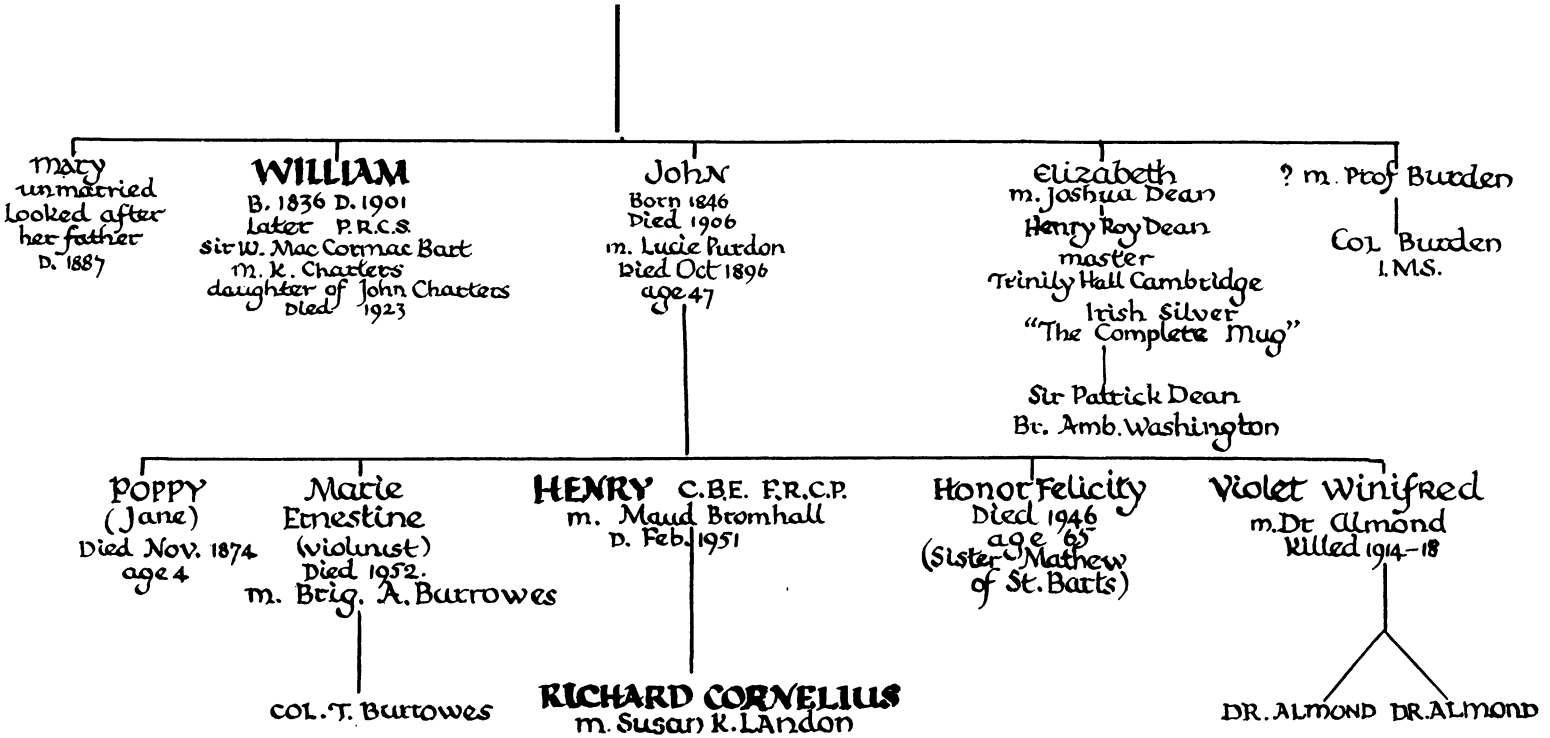


FIG. 1

The MacCormac Family Tree

ultimately became chief magistrate or Lord Chief Justice. (Fig. 1). He was stationed there for 50 years but returned to England, died in Liverpool, and is buried in Lurgan. This brother's career was an interesting one. It would appear that there was another brother, Hamilton, who married a West African girl from Sierra Leone or the Gold Coast and had quite an extensive family. These dark skinned children on many occasions visited Belfast to stay with their Uncle Henry. One of the daughters of this marriage married an African called Easmon and arising from that there has been, and still is, a small dynasty of brilliant African doctors. One of them at the moment is the Chief Medical Officer in Ghana and a brilliant surgeon. This Easmon-MacCormac marriage has done much for West Africa. We would like to think that it was at least partly due to the MacCormac genes.

Henry had a great affection for his brother John and dedicated one or more of his many books to him. A great feature of Henry MacCormac was his close affection for his relatives. Many of his books are dedicated to his daughters, to his son William or other relatives. In reading a small handwritten book of 80 pages written by Henry himself which he calls his "Life" he describes the sea voyage to West Africa, the life on a windjammer – and the terror and excitement when they were overtaken and hailed by another vessel which they thought was a pirate vessel. I am rather inclined to think that this is the true story of his visit to West Africa. The other one, describing the overland trip from South Africa as given in the Dictionary of National Biography, is probably fictitious – as indeed are some of the statements made about him and his father.

He stayed in West Africa for almost one year, obviously enjoying the country and its problems, and it is not surprising to see him writing in 1874, nearly fifty years later, an article on health in the Gold Coast. The reason for this at that time was obviously that preparations were being made then for General Garnet Wolsey's famous march into Ashanti. In his twelve months in West Africa he had malaria six times. This is not surprising as he seemed to defy all the rules laid down, and to visit mangrove swamps after dark was courting disaster.

Before settling down in Belfast in practice he made two further trips overseas – to the United States of America and Canada – and when one realises that these were made by windjammer we can realise the courage of this young man.

Before going on to Henry's career we should mention in passing the other members of his family. There were in all six brothers and two sisters. One brother – Joseph – was a fine young man. He perished at sea and was last heard of when his boat put into Wellington, North Carolina, with four feet of water in her hold. Another brother – William – was an officer in the Navy, and he spent, among other things, four years in the Baltic and finally died at Cape Coast Castle in the Gold Coast. It is said that William and John once met on the broad Atlantic – William was on the poop of his man-o-war and John was on his vessel en route to Sierra Leone. They waved to each other but never met again. The other brother, Hamilton, also died in West Africa; the youngest brother, James, was born in Gilford and lived in Belfast as a linen merchant, where he died in 1859.

Dr. Henry married on 8th October, 1833, a distant relative, a Miss Mary Newsam. She was a descendant of a very old English family that had come to Ireland in 1640. Their first home in Belfast in 1835 was at 17 Wellington Place

and by 1839 they had moved to 8 Wellington Place. The Belfast Directories show that they lived later at 7 Chichester Street, and then came back to 3 Wellington Place from 1846, and finally from 1870–1886 his home was 7 Fisherwick Place, the present site of the A.B.C. Cinema.

At the early age of 28 he was appointed physician to the General Hospital. This was an exciting and expanding time in the history of Belfast. It was two years later, in 1830, that rumours kept reaching Belfast that the dreaded disease of Asiatic cholera was on the march. It was supposed to have started on the banks of the Ganges in India. Rumour had it that it had crossed the Russian border and was slowly moving westward. Regular reports were given and how much accurate progress reports were available I do not know: but as maps show its progress could be plotted out. It was easily understood that in Belfast the cry could constantly be heard "It comes – it comes". The management of the Belfast Hospital with considerable forethought, built a temporary cholera hospital behind the main hospital and Dr. MacCormac was put in charge. He also wisely organised in addition another building to isolate the contacts—a quarantine house in Lancaster Street. The disease finally reached Belfast on 29th February, 1832. The

FIG 2—*Presentation to Henry MacCormac*

This service of plate of which this forms a part

was

Presented

(Pursuant to Resolutions unanimously agreed to at a Public Meeting held for the purpose)

to

HENRY McCORMACK MD

by

A number of his fellow citizens

In testimony of

Their high estimation of his unwearied judicious and efficient services as Physician to the Belfast Cholera Hospital during the year

1832

Richard Sawyer (Dublin)

first patient was Bernard Murtagh. With MacCormac's excellent isolation arrangements the epidemic was kept from spreading and the disease was virtually over in December of the same year and the cholera hospital was able to close down.

MacCormac got great praise for his isolation arrangements and his method of treating the disease with dilute mineral acids – chiefly dilute sulphuric acid. For his work he was given a very handsome public testimonial. (Fig. 2). This was a delightful silver tea service – teapot, sugar basin, etc., all of Dublin Georgian silver (maker: Richard Sawyer) – a valuable gift in those days, but priceless today. It is now carefully kept by Mrs. Henry MacCormac. It is interesting to see that many years before James McDonnell, the founder of the Belfast Medical School, had been given a rather similar tribute. Henry's testimonial was well deserved as in this epidemic 2,870 people were attacked and there were only 480 deaths, one in six, a much lower rate than in many of the other cities across the water.

It was in this same year, 1832, that at the Belfast Medical Society – the forerunner of this Society – the idea of starting a medical school was suggested, but it was finally in 1835 that a medical faculty was added to The Belfast Academical Institution (Inst.), which already had a faculty of Arts.

TABLE II—ULSTER MEDICAL SOCIETY

1806	Belfast Medical Society formed
1814	Dissolved due to "Demon of Discord"
1822	Restarted – active ever since
1832	Sugestion made to start Medical School
1835	Professors appointed
1836	Dr. Henry MacCormac elected Professor to Medical School at Inst. Dean of the Faculty
1848	Queen's College built, but Dr. Henry MacCormac *not* re-appointed
1849	Queen's College opened to students
1851	Belfast Medical Society becomes Ulster Medical Society

Some buildings bought out of a Government grant were erected, and Inst. bought in addition a building called the Old Barrack (an old disused military hospital) for £1,750, a sum which exhausted its funds. This was intended to supply the clinical needs of the new medical faculty. Prior to this time 300 students left Belfast every year for schools elsewhere. Some professors were at once appointed, but for the chair of medicine there was a certain degree of rivalry between Henry MacCormac and Thomas Andrews, which caused this appointment to be postponed for one year. It is interesting to see that both men were destined to become great in different ways. Andrews' work in chemistry and the liquefying of gases, with the many high academic honours that came his way, does not need to be mentioned to many here. Andrews was given the chair of chemistry and MacCormac was appointed to the chair of the Theory and Practice of Medicine. He held this chair

until 1848 when the new Queen's College took over, and during that time, from 1840–1845, he had been Dean of the Faculty.

It was in 1848 that Sir Robert Peel decided that a new University should appear in Ireland as, up to then, everything had been centred in Dublin – Trinity College and the Royal College of Surgeons – and so to bring Cork, Galway and Belfast into the picture the Queen's University in Ireland was inaugurated in 1850, with a separate Queen's College in each of these three place. The Queen's College, Belfast, opened its doors in December, 1849, and Inst. no longer was required for higher education. However, by an oversight no arrangements had been made for anatomical studies or a dissecting room in the new College; they were carried on at Inst. until 1862. During this time at Inst. the medical faculty turned out more than 600 graduates. All of the existing professors relinguished their chairs in the Institution, and three of these were re-appointed. The Chair of Medicine was given to Dr. John Creery Ferguson, an Ulsterman from Tandragee, who had held the King's Professorship of Practice of Medicine, Dublin, from 1845. He held the Queen's chair until he died in 1865. This same Dr. Ferguson was the first President of this Society in 1851, which was the year when this present Ulster Medical Society was formed, by the fusion of two older bodies, and changed its name from the narrow one of Belfast Medical Society to Ulster Medical Society, to embrace the entire province.

In 1849, although MacCormac had failed to be appointed to the Chair of Medicine in the new Queen's College, he was given another appointment which he held almost until he died, and which he greatly prized – that of physician to the Lunatic Asylum. Many of his writings centre round the improvements that he carried out for the mentally ill. He instituted regular exercise and better food and sanitation. It is to be noted that in this same year Belfast had another visitation of Asiatic cholera, and although in the three kingdoms the overall death rate was higher than in 1832 yet thanks to MacCormac's methods there were no deaths at all among his asylum patients. In 1849 the cholera deaths in England were 53,000 with 14,000 in London alone.

The years before that had been very unsettled years for Ireland as a whole, with always recurring epidemics of small-pox, dysentery, Irish Fever (as typhus was called), with perhaps the famine year and the Great Hunger being the culmination of all that was horrible, when crops, trees, animals and human beings suffered such horrors. In 1847 three million were fed by the state. Those able to emigrate were fortunate. Help came from England, from the Society of Friends and the British Association. Thousands of tons of flour came from New Orleans. The death rate was high; one in four among dispensary doctors alone. The population fell from 8,000,000 to 4,000,000 where it has remained ever since. I wonder how many people as they go along our famous coast road from Larne to Cushendall realise that this was the Famine Road and its creation was one of the many works given at that time to create labour and money and food.

Half way through the century a new MacCormac is beginning to appear. Henry's elder son, William, was born in 1836 in 17 Wellington Place. He was educated at the Academical Institution, and from there he went to Queen's College. In 1855 there is a note to say that Dr. Henry MacCormac was an applicant for the Chair of Medicine in Edinburgh, and in the same year we see that his son

William, still an undergraduate, now aged 19, was reading a paper before the Queen's College Literary and Scientific Society on the "Unity of Science". He was made President of the same society in 1857–58.

But I must go back to his father as there is much still to be said about him. Henry, although unsuccessful in his application for the Chair in Edinburgh in 1855, did apply two years later in 1857, for the Chair of Materia Medica in his own Queen's College, Belfast, but again was unsuccessful. This chair was filled by a well known character called Professor James Seaton Reid. It may perhaps be that MacCormac's eccentricities, or rather unusual views, made him *not* the most acceptable choice for a professional chair. This might be no bar in this modern age – possibly the reverse.

Little has been said of the man himself. He was very happily married and had a family of two boys and three girls. (Fig. 1). One son became famous and we have already touched upon him and will give more details about him later on. Another son, John, became a linen merchant, lived in Malone Avenue, and died in 1906. He also was a very original character, and was said to have many novel views about the spinning of flax. He also was somewhat unusual; it is said that on one occasion he had been missing for a long time and eventually was found by some friends in a travelling circus. When they caught up with him he was with others at the end of a long rope with the circus elephant at the other end. He was known to be gay, and many stories, not all suitable for repetition, are told about him; possibly he inherited this trait from his grandfather. John's son, another Henry, however, became one of London's leading dermatologists. After a gallant record in the 1914–18 war he settled in London with a large and influential practice and with his attachment to the Middlesex Hospital we see him carrying on the MacCormac traditions. His son, Richard Cornelius, with a double first at Cambridge, is carrying on the record of a great family tradition.

Two of Henry's daughters married. One, Mrs. Burden (her husband, Professor Burden, was the first Professor of Midwifery in Queen's College), had a son who achieved high honour in the Indian Medical Service. The other daughter, Mrs. Dean, had a son who was Master of Trinity Hall, and her grandson is at present the British Ambassador in Washington. The third daughter, Mary, remained unmarried and was a great solace to her father in the last fifteen years of his life after his wife's death. This daughter died one year after her father, and is buried in the family vault in the Belfast City Cemetery.

For many years Henry carried on an extensive consulting medical practice although we can see he was gradually getting more and more interested in literature. He was able to combine both as he was a very early riser, often getting up at 4 a.m. or 5 a.m. and working for four hours without a break with a small fire or no fire at all. "He was a tall man with a rather colourless complexion, and with the head of a philosopher he was certainly not practical but looked the sage." This description was given to me by Mrs. Duffin, aged 100, one of the few people actually to remember him. She remembers Dr. MacCormac once asking her father in for a curry lunch. This turned out to be rice only. Dr. William Drennan (her father) was half amused but also somewhat indignant.

Henry MacCormac is, of course, most noted for his fresh air campaign. Many stories are told of him having to appear in court for having broken the window

panes of a house with his walking stick or umbrella to let fresh air in when the patient refused to open it, and he obviously had the police co-operating on his behalf when one morning at breakfast a constable called to say, "Miss Mary's window was not open last night." This was one of his patients.

"At one time he lived in a red brick house with a rounded window which looked out on Inst., but later he moved to 7 Fisherwick Place." Mrs. Duffin remembers this as it was the "house with the fig tree growing up it." This house, in which he died, was in a row facing the Presbyterian Assembly Buildings. on land now occupied by the A.B.C. Cinema. His neighbours included the Ulster Hospital for Children, Dr. H. S. Ferguson, M.D., Dr. R. F. Dill, M.D., and Miss Pirrie.

About twenty years before he died Henry gave up his general consultant practice, except for the asylum, to take up writing exclusively. This may not sound so unusual today when it is realised that he was then 66 years of age. His many subjects included medicine, tuberculosis, insanity, philanthropic works, stammering, religion, etc.

He was, in fact, producing a dictionary of philology at the age of 86, which was never completed, when he died. He was deeply versed in foreign languages, possessing a knowledge of 20. He translated from the originals "Meditations of the Emperor Marcus Aurelius Antonius", and also the "Manual of Epictetus" in 1844. Later in life he translated articles from the German, often dedicating the books to his daughters.

He was a most kindly benevolent type of man, and a lover of children. His daily walk of two miles to the asylum when over 70 years of age, in all weathers, surrounded by small children, was a well known sight, as he distributed to them pocketfuls of good things that he purchased for them on the way. He was socially delightful and a good conversationist. He was much sought after in cultural society and much admired for his benevolence and humility. His kindness not only involved thoughtfulness for his patients and mankind, but he wrote a strong article on the humane killing of animals for human food. All through his life he had a great sympathy for suffering.

He had a great scientific imagination and the zeal with which to pursue it. He had the power of concentration given to few, as well as the physical endurance necessary. He felt that as a man kept his body muscles fit by exercise so the only way to keep the heart muscle fit was also by exercise and each day the heart must be given some extra work to do. He was a deeply religious man with a strong faith in God and God's creatures, and yet he was trammelled by no creed. He did not acknowledge any sect, yet one of his papers was a bitter condemnation of another sect, which was not in keeping with a man who held such views.

Although I have extolled the virtues of this man, he nullified much that he did by the obstinate stubborn way in which he put forward his ideas and refused to see reason in any of those who opposed him. When he sent his son to school at Queenswood College, Hampshire, he had great trouble with the school authorities to have the window kept open all night, and when William went later to Germany he insisted that the windows remained fully open although the occupants of the room had to break the ice on the water jugs in the morning. His views on fresh air are well seen in the following from one of his books: "I would speak, in

especial, of a chamber which I once visited as I had often before entered it, early one winter's morn. It was the sleeping closet of my son. His low trestle bed stood betwixt the severally widely open window and door while the keen but exquisitely fresh sweet atmosphere from wind-swept hills career through the apartment ceaselessly. The hue of exuberant health mantled over the boy's every feature while, bordering the coverlet, there extended a finger of pure white snow which the genius of the fragrant night had wafted in all harmlessly during the hours of my child's repose." When he sent his daughters to Paris he thinks the only windows open in that town were in his daughter's apartment – in fact he had to rent a room for their exclusive use to ensure that this took place. After a long walk one morning he brought a tramp in for breakfast and when remonstrated with he pointed out that this man needed the breakfast much more than his daughter !

It is interesting to see how little Malcolm, in his history of the Belfast General Hospital, mentions MacCormac. It would appear as if his persistent and irrational claims perhaps made him an uneasy colleague and the fact that he was not appointed to the new college when it moved to Malone Road, and that he was unsuccessful later in obtaining other chairs, rather suggests that his views were not acceptable. Often, however, a man may not be recognised in his own country and yet be accepted abroad. There is a street in Copenhagen named after him, and in France, Belgium and Germany his works and his views on fresh air were accepted. Some would go so far as to suggest that the vogue of the open air treatment of tuberculosis in Germany and Switzerland was influenced very much by him and his writings. Although not fully appreciated at the time it is interesting to see that Sir William Whitla, when generously donating to the Ulster Medical Society in 1902 the building that we have occupied until recently, should have chosen to adorn the building with four figure heads. Two of these were chosen by him as the most illustrious of the medical faculty at Inst., i.e., Andrews and MacCormac, and the others – Redfern and Gordon, from the new medical faculty in Queen's College.

He was made a corresponding member of the National Institution in Washington, and also of the Belgian Medical Academy. When the British Medical Association met in Dublin in 1867 he read his paper – his hobby horse – on the rebreathed air being the cause of tuberculosis, and when the same association met the following year, 1868, in Oxford, he again gave the same paper. I have no information of how well it was received, but we do know of the hostile reception when he gave the paper with its ever repeated – but never proven theory – in London, at a meeting of the Royal Medical and Chirurgical Society of London. Dr. Chambers said the reading of this paper was a waste of time, and Mr. Ashton concluded by saying that the society should refuse to pass a vote of thanks – and someone else suggested that all papers should be scrutinized before being accepted. His son was present and was so annoyed that he resigned from this society at once. This meeting and the adverse criticism were never forgotten by him, and 20 years later he published still another letter to the same society on "The Cure of Tuberculosis as conducted at Davos and the Engadine". He reminded them of their previous verdict and now asked them to reconsider their accusation. He was not to be discouraged, although his theory of the cause of tuberculosis could not be supported. He said, "If I had a stentor's voice or an angel's pen I should

employ them to enlarge my views." He had been impressed by the foul air in L'Hôtel Dieu when he was a pupil there working with Baron Dupuytren. This may have given him his profound sympathy for the sick and the indignation that he had for the appalling conditions of the lower classes.

He set aside two hours daily for free consultation at his home, only insisting that the patient should be poor and ill. It should be remembered that his first book on this theory of the "rebreathed air" being the cause of consumption was published in 1855, and his treatment was the open window. The title of his first book was "On the Natural Treatment and Prevention of Pulmonary Consumption and Scrophula." The second edition appeared in 1865 – ten years later. His thesis was that consumption is engendered by rebreathed air leading to the retention of unconsumed carbonaceous wastes in the lungs. This second edition was followed by a more extensive one still in 1872. His campaign was being vigorously carried out by himself – a sole warrior I am afraid – when suddenly in 1882 the real cause of tuberculosis was proclaimed by the discovery by Robert Koch of the tubercle bacillus. This acted as a stimulus for him, now aged 82, to go back to the fray to ridicule Robert Koch. His paper was entitled "The Etiology of Tubercle with Comments on Doctor Robert Koch's Bacillus."

What is consumption? ..... The bacillus.
What is the bacillus? ..... Consumption.
What causes consumption? ..... Why, the bacillus.
What causes the bacillus? ..... Consumption, to be sure.

Q.E.D.

"Bacilli do not constitute the effective agency – Dr. Koch's Bacilli do not cause Phthisis. It is the patient that causes the disease – Dr. Koch is putting the cart before the horse."

His entire book is a denial of Koch's work. It should be pointed out that this year, 1882, was the turning point in the diagnosis of tuberculosis, and Koch's postulates were soon accepted by the whole world but MacCormac would never accept them. His inability to see any other point of view except his own was unfortunately one of his weaknesses and this stubborness and arrogance must have certainly prevented him from being a much greater man. How fortunate that his son faced with the new antiseptic technique of Lister accepted it at once, and this readiness to see new methods made him a pioneer in surgery at that time.

Although MacCormac's views on the cause of tuberculosis were never accepted yet his treatment by open air was followed up and many people throughout Ulster have seen the tuberculosis patient housed in a chalet in the garden. Sir Humphrey Rolleston, speaking in Canada in 1933, placed George Roddington first and Henry MacCormac second as among the pioneers and protagonists of the open air treatment of tuberculosis. Unlike Roddington MacCormac refused to be discouraged.

It is impossible to give in detail the many subjects touched on by MacCormac in the thirty or more books and papers published by him, some during the busy period of his active medical life and the others in the last twenty years when he was chiefly engaged in writing. In 1828 he wrote an article on stammering. He had been interested in this during his visit to the U.S.A. when he met someone in Washington. In 1832 he published his work on the treatment of Asiatic cholera. Although he had treated some patients with tincture of opium which he gave in

TABLE III

MacCormac's writings include:

1. "A Treatise on the Cause of Cure of Hesitation of Speech or Stammering". 8 vo. Lond. 1828.
2. "On the Best Means of Improving the Condition of the Working Classes". 8 vo. Lond. 1830.
3. "An Exposition of the Nature, Treatment and Prevention of Continued Fever". 8 vo. Lond. 1837.
4. "The Philosophy of Human Nature in its Physical, Intellectual and Moral Relations". 8 vo. Lond. 1837.
5. "Methodus Medendi, or The Description and Treatment of the Principal Diseases Incident to the Human Frame". 8 vo. Lond. 1842.
6. "On the Connection of Atmospheric Impurity with Disease". 8 vo. 1852, contributed to the Belfast Social Inquiry Society.
7. "Moral Sanatory Economy". 8 vo. Belfast, 1835 (2 editions).
8. "On the Nature, Treatment and Prevention of Pulmonary Consumption". 8 vo. Lond. 1855; 2nd edition 1865. Translations appeared in German and Dutch.
9. "On Tubercle". 8 vo. Belfast, 1856, read before the Edinburgh Medico-Chirurgical Society.
10. "Twenty Aphorisms in Respect to Health". 24 mo. Lond. 1857.
11. "Aspirations from the Inner, the Spiritual Life". 8 vo. Lond. 1860.
12. "Metanoia, A Plea for the Insane". 8 vo. Lond. 1861.
13. "The Painless Extinction of Life in Animals designed for Human Food". 8 vo. Lond. 1864.
14. "On Synthesis as taking Precedence of Analysis in Education". 8 vo. Lond. 1867.
15. "Consumption and the Air re-breathed . . . A Sequel to the Treatise on Consumption". 8 vo. Lond. 1872.
16. "How to Preserve Health on the Gold Coast". 8 vo. Lond. 1874.
17. "The Conversation of a Soul with God, a Theodicy". 8 vo. Lond. 1877.
18. "Moral Secular Education for the Irish People versus Ultramontanist Instilment". 8 vo. Lond. 1879.
19. "Etiology of Tubercle", which Comments on Dr. R. Koch's Bacilli. 8 vo. Lond. 1883.
21. "Cholera and its Arrest by Dilute Acids".
22. "The Open-Air Treatment of Fever".
23. "The Meditations of the Emperor Marcus Aurelius Antoninus".
24. "The Manual of Epictetus". 12 mo. 1844.

plain water or peppermint water, he found this too expensive and was able to get equally good results with dilute acids – ½ drachm of dilute sulphuric acid. This was so cheap that he advocated that some should be put at the end of every street in the event of or in the presence of an epidemic. He claimed that "1 lb. of strong sulphuric acid can deal with 2,000 cases and costs only 1d per person." He later refers to cholera, and there are other papers by him on the subject. In all he personally had 3,000 cases of Asiatic cholera through his hands. He found that the poor did better than the rich.

II

On the 17th January 1836 Henry and Mary MacCormac had their first son, William, born some 2½ years after their marriage. Dr. Henry MacCormac was living at that time in 17 Wellington Place, the Harley Street of Belfast.

With a father competent to speak so many foreign languages, it is obvious that the young William early on became proficient especially in French and German, and, as his father when a student in Paris had studied chemistry, the son soon became interested in science also. The Royal Belfast Academical Institution (Inst.) was the obvious choice for the boy's education as, firstly it was almost in full view of his home – his parents had recently moved to 3 Wellington Place, only a few houses away, and secondly, this was the year that his father was applying – successfully as it turned out – for the Chair of Medicine in the Institution. Unfortunately the records of the Institution from 1836–1859 are unavailable for some unknown reason (except in a few cases – there is a record that John MacCormac – William's younger brother – entered Inst. in 1856), so we know little of William's work, his play or his interests at school.

He left school in 1851 at the age of 15 and entered Queen's College, Belfast, where he was enrolled in the Faculty of Arts which at that time included a science division. He also took a course in Civil Engineering and Philosophy, and finally he graduated B.A. in 1855 and then transferred to the Faculty of Medicine, graduating M.D. in 1857. The doctorate was the primary medical degree at that time. He had already obtained the licence in midwifery in 1856.

In the same year as he obtained the M.D. of the Queen's University in Ireland MacCormac became a member of the Royal College of Surgeons of England, so probably even then his sights were levelled on London. In that year also he was President of the "Literific". Many years later he wrote to the then President saying how sorry he was that he did not speak more often or take part in more debates but he always felt somewhat shy. It is interesting to see how often the most successful people have had the courage to change their way of life. William MacCormac would probably have reached the top in any discipline. As a student in engineering he obtained scholarships in the first two years and later a senior scholarship in natural philosophy; and when finally he qualified in medicine he obtained first place with a gold medal.

While still a student William, although only eighteen years of age, acted as medical officer at Glenarm for a short time during an epidemic of Asiatic cholera; we can see his father's influence behind this. After qualification he took further post-graduate training in Dublin, Paris and Germany. In Berlin he made particul-

arly close and lasting friendships with men such as Bilroth, Von Esmarck and Langenbeck. Little did he then realise that in the Franco-Prussian war he would again meet them and later, in London, that they would form such valuable links for international conferences. William, with his striking appearance, easy manner and bonhomie, had the ability of making friends, but he was able with his fluency in foreign languages to continue friendships which others would have failed to maintain.

On his return to Belfast we see that in 1859 he was a resident in the Belfast General Hospital. It might be mentioned here that in 1854 the funds of the hospital were at such a low ebb that the house surgeon's salary was reduced from £100 to £10 per year, and probably this was William's salary when he was appointed. After more post-graduate surgical study in England and Dublin he obtained the Fellowship of the Royal College of Surgeons in Ireland in April 1864. There seems to have been even then keen competition for a consultant appointment on the surgical staff of the hospital, as a printed booklet of his testimonials shows. In fact this only ceased with the arrival of the National Health Service in 1948. His testimonials, some thirty or more, were from surgeons in all parts of the three kingdoms as well as from his continental friends. He had thus, at the age of 28, when he was appointed visiting surgeon to the hospital in July 1864, already an international reputation, or at least international recognition.

For the next six years we see this active, hard working, ambitious man, flambuoyant and gay, steadily making progress, but probably too slowly to satisfy himself. He was appointed to be a surgical lecturer and was recognised then to be a good teacher. He was living in 4 Howard Street and was steadily building up a consultant practice. He collected a large number of appointments. He was at first a member of the Belfast Medical Society and honorary secretary of the Belfast Clinical and Pathological Society, and when they fused he became a member of the council of the new Ulster Medical Society. He was medical officer to the Malone Protestant Reformatory, a member of the Surgical Society of Ireland, and at the age of 34 we find he was made a member of the senate of the Queen's University in Ireland.

A man of great size, probably 6 ft. 3ins. or 6 ft. 4 ins. in height and flamboyant in his way of life, he naturally chose to get married in a manner in keeping with his reputation, by eloping with Katherine Maria – said to be an heiress – the daughter of a rich and well known Belfast linen merchant – John Charters. Charters, like all flax merchants in Belfast at that time, had made a vast amount of money as a result of the American Civil War which had made cotton almost unobtainable. This marriage would appear, at the time, to have been disapproved of by both families. The Charters family felt that their daughter was throwing herself away on a penniless surgeon and the MacCormacs – proud of a rather distinguished and aristocratic background – felt that William was marrying a tradesman's daughter – in fact they thought she was somewhat "common". No matter how it started, it was a great success and to the end in his letters he always refers to his "Dear" or "Darling Kate." The misunderstanding must have been very short-lived judging by the very generous donations made by John Charters to medical and other charities. We see a new wing – the Charters Wing – added to the General Hospital in 1865, as well as additions to the operating theatre

– which was originally planned by Sir Charles Lanyon. Both of these were given at the suggestion of William. A professorial unit in the present Royal Victoria Hospital is called the Charters Ward with a bust of John Charters on the wall. Other scholarships went to Inst. and the Belfast Royal Academy, as well as a further wing to the "Old Charitable". An interesting scholarship was given to medical students whilst this faculty was still at Inst., but it had only ten years span of life and is no longer available. William MacCormac was one of the trustees. The financial help from the Charters family as well as his wife's large dowry must have been of great help in his struggling days in Belfast, but they were of even greater value when William, later in 1871, without any backing, broke into the ruthless cut-throat competition of Harley Street. For this he had to borrow from Katherine's brother Washington Charters, £4,700. This allowed them to settle in 13 Harley Street which was to be their permanent house for life. This loan was paid off in full – the final receipt appears in his diary of 1884. This year was probably the financial pinnacle of his career; he was then an active man of 48, with the ball at his feet.

During his struggling period in Belfast he wrote and delivered many papers in Belfast, Dublin and London, covering various topics: "Hernia"; "Amputation of the thigh compared with excision of the knee joint"; "The antiseptic treatment of wounds as advocated by Lister". Many of these papers appeared in the *Dublin Quarterly Journal* or the *Dublin Medical Press.* Like his father his interests went beyond medicine into history and archaeology and for this he was elected a member of the Royal Irish Academy. He was a medical referee for many insurance companies, including the London & European Assurance Society, and he was a divisional surgeon for the Belfast Constabulary. He was a Fellow of the Royal Medical Chirurgical Society of London.

It is interesting to note that in the hospital anual report of 1864 – the year that he was appointed to the staff – there is a satement that the management deplore the large number of gun shot wounds caused by civil riots – our Board of Management might say the same 100 years later! I wonder did this give William his first interest in bullet wounds which was to be for him a consuming interest all his life.

In 1869 William is getting restless, and in that year he applied for the post of surgeon to the Metropolitan Constabulary in Dublin. He was not appointed which, as it turned out, was for him and for British surgery, a most fortunate affair. In the spring of 1870 he was elected President of the Ulster Medical Society, but he never really took office. He departed in August of that year before the session started and was destined never to return to Belfast.

As mentioned previously, one of William's early articles was on "Antiseptic Surgery". Lister's methods were more readily accepted in some provincial centres than they were in certain parts of the metropolis – in fact in London the general opposition persisted for a long time. It was, however, a great feature of William's character that he was willing to accept and adopt a new idea. Probably one of his father's greatest weaknesses was that he would never accept any ideas except his own.

Although Listerian principles started with Lister's first paper in 1867 – 100 years ago this year – they were not yet universally accepted nor indeed was his spray invented till 1871. Yet it did mean that for the wounded of the Franco-

Prussian war of 1870 a new surgical technique with revolutionary results was available. This MacCormac tried to apply during this war, but writing later he complained bitterly of lack of supplies of carbolic acid which prevented him giving the new method as good a clinical trial as he would have liked. During the Turco-Serbian war of 1875 the method in all details was available with excellent results. The Franco-Prussian war, although it did not involve Britain directly, had a greater impact on British medical and para-medical organisations than any previous war. This is not often realised. The British Army Medical Services were reorganised as a result of it; medical officers now came under the medical department with abolition of the regimental system. The ambulance system was modernised, garrison establishments and general hospitals were suggested for the first time, the Red Cross and St. John organisations took their place in society and were becoming organised bodies. The Battle of Solferino (1859) said to have been the greatest slaughter in the history of mankind, so impressed the young Swiss banker (Dunant) that he devoted his life to organise a body called the International Red Cross Society with its sign the flag of Switzerland in reverse, and although he died in poverty he at least lived to see his ideas accepted by many nations. Before that in a battle there was no rallying point to which to carry the wounded – a mass of bunting or a black flag marked the site where some very inadequate medical attention might be obtained. These fundamental changes all arose from the well organised and scientifically trained units of Bismarck's army and not from the hopeless rabble of the disorganised French forces.

William had an irresistable urge to get to the war and with difficulty and with many obstructions he reached Paris and reported to Sir John Furley, representative of the newly formed Red Cross Society. It was Sir John who went forward to reconnoitre and suggested Sedan as a suitable spot. Kate accompanied William to Paris but returned home at once. The British Red Cross – a subdivision of the International Red Cross – was not yet in existence and an organisation called "The British National Society for Aid of the Sick and Wounded in War", was the body through which he had to work. On arrival in Paris William was taken to the French National Society for Aid to the Wounded in the Palais de L'Industrie in the Champs-Elysées, and here he was told that no foreign surgeons would be allowed to serve. However, some days later Nélaton, an old friend of his, came back from the French H.Q. at Metz with the Emperor's personal permission for Englishmen and Americans to offer their aid, and so some days later with an introduction to the chief surgeon – Dr. Isnard – he set off for Metz. This was in August 1870. Metz with great fortifications and two deep ditches around it was the most strongly fortified town in France. "It will be a hard nut to crack" was the universal remark. How false in fact this turned out to be; yet the French said the same of the Maginot line some seventy years later, and Sedan was fought over again for the second time.

MacCormac was given a pavilion for operating next to the surgeon in chief in a hospital ready for 2,000 casualties, a wonderful opportunity and wonderful responsibility for a young and eager surgeon of 34 years of age. However, this was not to be. He was given the necessary permission by the Mayor to live in Metz but he was able to work only two days. There was a general hysteria as there were Prussian spies everywhere, and after he had been seen speaking to an American

he was reported to the Prefet's office and asked to leave at once. He just got away in time as the gates of the town were closed next day and he would otherwise have been a prisoner. He was glad to get away as he had received such a scant welcome. His return journey to Paris was an interesting one of 26 hours. On the way he was intrigued that people would constantly came into the carriage from the outside when the guards had passed – spies seemed to be everywhere. On reaching Paris he was unwilling to give in and so he joined up with Dr. Marion Sims who had been invited by the Americans in Paris to come over from New York and organise an American Ambulance for Service in the Field. Marion Sims – a gynaecologist – had learned his military surgery in the American Civil War, and was a trained and hardened campaigner. It is interesting to see how easy it is to convert a gynaecologist to war surgery. Spencer Wells made his reputation for military surgery in the Crimea.

The Ambulance was made into a combined affair – with eight British and eight American surgeons. Difficulties arose very soon as the ambulance teams themselves wanted to go to the forward area, but the organisers in Paris, thinking of themselves, wished it to remain in Paris, realising that a long siege in the near future was inevitable (as indeed it was). The combined ambulance however won the day and went forward. It left Paris on August 28, and on the fateful night of August 30 – remembered by all Frenchmen – it was at Sedan. It was here in the early hours of the morning – whilst pacing along the deserted railway platform, with the rest of the team bivouacked in the station – that William MacCormac saw at 2 a.m. an engine with a single cattle truck drawing in, and out of it stepped the Emperor of France – Napoleon III – with two attendants. MacCormac followed the Emperor who had great difficulty getting into the town proper as the drawbridge was up and those inside were loath to let it down. Although Napoleon's entry into the town was ignominious, it was worse still when he left it a prisoner of war some few days later. On that day he lost his freedom and his Empire. Sedan was the greatest and most humiliating surrender in history, 173,000 men with 3,000 cannon. It was a flagrant act of treason.

MacCormac had a hospital of 384 beds in an old disused infantry barracks on the ramparts – The Caserne D'Asfeld. In his diary he gives great details of the of the day to day work. At the beginning it was only a giant with tremendous physique who could have stood up to the strain, with 1,000 casualties the first day. The work went on continuously for ten days with everyone overworked and at breaking point. It is interesting to see that in the last war many of his findings were rediscovered. Surgeons, he said, if constantly overworked, fail to give of their best. It is sound judgment and clear intelligence that begins to fail before the actual physical fatigue. There were in all 12,000 wounded at Sedan – excluding the dead – about the same number as at Arromanches on the invasion of France in the last war. Deaths as one would expect were chiefly from hospital gangrene, pyaemia, and erysipelas. There were no such things as antibiotics, and chloroform was the regular anaesthetic. A tourniquet was not used and the blood vessels were mostly twisted and not tied. Wounds were dressed with dilute carbolic acid in some form or another as suggested by Lister. Lister was most precise in his directions. This certainly allowed much more bone and joint surgery to be attempted than had been done before. In a letter on his return to Col. Lloyd-

Lindsay, V.C., M.P., to whom he was reporting the results of his work, he very much regretted that, due to shortage of carbolic acid and the inability to get any more, all the wounded could not be treated in the Listerian way. It is interesting to see the impact that Lister and MacCormac both made in surgery. Lister provided the ideas and technique and MacCormac carried out the field trials. They were close friends, Lister being older by nine years. Although MacCormac may have had difficulty getting established in London when the time came he did not face the hostile reception that poor Lister, born in Essex in 1827, did when he arrived at King's College from Edinburgh having been 25 years north of the border. When Lister succeeded Fergusson in 1877 the disappointed local candidate put every obstruction in his way. Lister and MacCormac had other things in common, neither had any children and both had wonderful wives who acted as secretary for them; much of MacCormac's writings were typed by his wife, an expert typist, and one can see much of Lister's work handwritten by Mrs. Lister.

At Sedan in the heat of the battle MacCormac slept with the men and on one occasion his team dealt with 240 cases in 24 hours. He mentions with great annoyance that finally when he did get a chance to sleep he was unable to do so due to bugs ! His hospital naturally was in no man's land with shells passing over it from both sides and on one occasion he had a near miss by a stray shell. Although carbolic acid was in short supply he does mention with some annoyance that there was available for the wounded "Liebeg's meat extract" – I wonder if this still carries with the expert dietitian the reputation that it had then !

On many occasions MacCormac repeats the well known dictum that a living man with three limbs is better than a dead one with four. He also pointed out, as so many since have recognised, that the only instrument with which to seek for a retained bullet is the finger. With immediate amputation he had a small mortality, but delayed or secondary amputation, e.g., after an ambulance journey, carried a heavy death rate. His book on the medical aspects of this campaign is almost a classic. It was translated into seven European languages as well as Japanese. It was fortunate for MacCormac that he had associated with him a war correspondent from one of the London papers who supervised his writing. At regular intervals reports on the progress of the surgery of this war were sent to the *Lancet*; all of which gave him a reputation which was to stand him in good stead when he was to apply later for a consultant post at St. Thomas' Hospital in London. It was these and the day to day diary that he kept that made his book "Notes and Recollections of an Ambulance Surgeon" so readable and so valuable as a book of reference. It contained many touching incidents. He describes his tour through the battlefields. On one occasion he found a dog beside the body of his dead master which it refused to leave. He was also much touched by the sight of so many dead horses – anything to do with dogs or horses appealed greatly to MacCormac. Probably the most touching incident was when he went out with Langenbeck – the German surgeon and an old-standing friend – who was going out to search for his son who was missing. Eventually they found the young Langenbeck mortally wounded. He described how he got his boots off for the first time after fifteen days – and how worried and alarmed he was when he himself got a septic finger with signs of extension of the poison up his arm. For some time he thought that the drinking water had a rather unusual flavour, but it was only when they got to the bottom

of the cistern that the reason was found. The tank contained the bodies of two dead Zouaves who had fallen in while trying to hide to avoid being caught. This put him off water, he said, for some time! He did not mind eating horse flesh, he said, but he did object to this type of infusion with which to wash it down. In some circles it was called "Eau de Zouave".

His book contains many illustrations and technical details of individual injuries with a comparison of the wounds inflicted by the different missiles. It was perhaps his early training in engineering that gave him such an interest in ballistics and the different injuries inflicted by hard and soft bullets. This interest remained with him all his life. A lecture he gave a few months before he died was called "Gun Shot Wounds, Old and New". Serving as he did in two further campaigns he was a recognised expert in a speciality not very useful for peace-time surgery, but it was said that if there was a serious shooting accident in the Highlands during the season he was always brought along as the expert. He got the name of always being more interested in military than in civil surgery. To read his book we realise that this man was in his element, and we are not surprised that five years later, when most people would have been consolidating their position in London, we find him off again to another European war; nor indeed should we be surprised when we see the same man at the age of 65 taking part in his third war – this time in South Africa. It is interesting that often a man who goes to one war wants to go to another – it is a psychological fact sometimes hard to explain.

On Marion Sims returning to the United States, William MacCormac took over full charge of the ambulance unit and when finally he returned to England he handed over control to Marion Sims' son-in-law; but by then the main problems of this short tragic war were virtually over.

MacCormac and his wife were regular visitors to the Continent. Some four years before the Franco-Prussian war while travelling by train in Northern France, they had the thrill of being involved in a railway accident. William, as in keeping with his way of life, took charge of the medical problems. His work was so much appreciated that he and his wife were given by Baron Rothschild a free ticket for life on the Chemin de Fer du Nord – a present that most of us would accept with pleasure.

William, now back from the war, has become a civilian again and is an applicant for a consultant post in a London hospital. When he spoke to one senior physician in Brook Street and told him that he thought of applying for St. Thomas', the latter said, "You have not a chance, they would not take you in as a bottle washer." Little did he know William MacCormac. The latter had personality, a sound surgical background, and a reputation and a social status enhanced by the Franco-Prussian war. More important still, he had the backing of a very influential group of people who represented what was later called the Red Cross, but who, in addition, at the same time, had great influence on the Board of Management of St. Thomas' Hospital, and so he applied with some confidence, with the usual booklet of testimonials, and with masses of referees both local and international. The records of the hospital say it was a close and bitter contest, but the actual voting shows that MacCormac got 42 votes, James F. West 10 votes, and the third candidate, Richard Barwell, withdrew. His application gave his address as 29 Grosvenor Street, but once appointed and ever afterwards 13 Harley Street is

to be his address, and so on March 9, 1871, he became assistant surgeon in St. Thomas' with later the duties of lecturing on practical manipulative surgery with Mr. Croft. It was in this same year that Queen Victoria had her only surgical experience when Mr. Lister opened a deep axillary abscess; he put in gauze soaked in carbolic but the wound would not discharge and so he replaced this plug with a rubber tube, and this was one of the first occasions that such a wound was so drained. This was in 1871 but Lister did not report it in the *Lancet* until 1908.

Although MacCormac was very proud of his London appointment, in all his books and papers he puts after his name that he is consultant surgeon to the Belfast General Hospital (from 1875 the Belfast Royal Hospital, and from 1899 The Royal Victoria Hospital, Belfast). His pride and love for his old city was one of his finest features, and like Lister he had a very warm and close relationship with his father. One may wonder why he chose St. Thomas' Hospital. This hospital had had over the last few years a troublesome time; originally, when in Southwark, it was cheek by jowl with Guy's Hospital. For a time for teaching purposes there existed a *mariage de convenance* between the two hospitals. However, finally, following a tremendous fight among the students, a permanent coldness existed. The final straw came when the Charing Cross Railway Act was passed through Parliament, and the hospital was asked to vacate its site to allow extension to the railway proper and to enlarge London Bridge Station. A short delay was granted, but finally in January 1862 they were forced to go at once, and given £296,000 compensation – but they had no place to which to go. There was a feverish hunt, 44 sites were considered and finally a short list of 14 places inspected. During all this as a temporary expedient the hospital took over the Surrey Garden Music Hall and pleasure ground at Newington about a quarter of a mile from Kennington Underground. It was far from being a satisfactory solution to the problem. The main building was a glass structure like the Crystal Palace – roofless as the result of fire – and the rest of the accommodation was in buildings which had previously housed a small zoo. The giraffe house became a cholera ward, and the elephant house became the dissecting room. The main building was repaired and adapted for 200 patients and opened in September 15, 1862. The huge glass building was divided into four sections but operating and lavatory facilities were virtually non-existent. This move was particularly sad as the old St. Thomas' had been on the original site for over 600 years.

The wrangling to chose a new site continued and finally Standgate site on the river opposite the Houses of Parliament was chosen. There was much opposition to this; the river was sluggish, the smells so great that in a hot summer even Parliament could not sit. This changed naturally with the building of the Albert Embankment. In 1864 a team of experts went to Paris, and decided to copy the Hospital Lariboisière, the latest hospital built on the pavilion plan. It was to contain 588 beds. Florence Nightingale agreed on the plan but not on the site. She opposed the river site on account of the fog, the smoke and the foul smells. It was sad that she refused to be present at the laying of the foundation stone by Queen Victoria when she came in May 1868 in deep mourning with Mr. and Mrs. Disraeli, or when the Queen came again on June 21, 1871, to open the new hospital. It is said that at the second visit Mr. Gladstone got lost in the crowd, detached from the Queen, as they did not realise that a change in Prime Minister

had taken place recently.

Although the Surrey Garden site helped to fill in the hiatus between the old and the new hospital it could not contain all the patients and many other hospitals were kind enough to help out. It was in fact in the final stages of the Surrey Garden period that William MacCormac joined the staff and so was present when they moved into the new hospital, and made his personal entrance into the hurly burly of London surgery at the psychologically correct moment. His main surgical qualification at that time was the Fellowship of the Royal College of Surgeons in Ireland. To make him acceptable to his London colleagues he was made F.R.C.S. England *ad eundem*. This *ad eundem* Fellowship had only been inaugurated in 1852 and he was one of the first to be appointed. It gave the holder all the rights and privileges of being a Fellow of the English College of Surgeons and no one made more use of the privilege or did more for his adopted college than William MacCormac.

Within two years his surgical chief, Mr. LeGros Clark, retired and MacCormac in 1873 at the age of 37 found himself a member of the full staff and joint teacher in surgery with Mr. Sydney Jones. The rule in St. Thomas' at that time, as indeed in many other London hospitals, was that a surgeon could remain on the full staff for 20 years or retire at the age of 60, whichever came first. The idea was that this period of service should be long enough to give him a good living and also allow him to save for his pension. It did mean that MacCormac must face the fact that in 1892 at the early age of 57 he must retire from his hospital. This arrangement actually persisted till the National Health Service took over all appointments on 8th July, 1948, when the retiring age became 65 years for all.

The next 20 years were exciting and important years for him. At the end of that time when sending in his letter of resignation he said that he had not missed more than six clinical lectures with his students! This was hard to understand when we know that he disappeared off to a second war during this time and also during the organisation of the 7th International Conference in 1881 he was so busy that he asked to be relieved of his hospital work and had a *locum tenens* appointed in his stead!

During the twenty years he wrote many papers and published some very important books on general surgery, surgical technique, and orthopaedic surgery. They were well and clearly written without the verbiage so annoying in his father's works. The illustrations, beautifully drawn, always showed the surgeon's hands with a very well cut sleeve and stiff cuff and sleeve links protruding! He got some reputation for being the first man to close the ruptured urinary bladder, and in his book on plastic surgery he describes the formation of a new nose from the forehead flap – originally invented in India where removal of the female nose was a very common form of retaliation by a husband somewhat annoyed by his wife's discovered infidelity.

In 1875 MacCormac went off to his second war. It might have been said of him, as of the stage Irishman, "If there is a good war about I want to join in." This time it was the Turko-Servian war in the Balkans. He was chief surgical adviser to the British Society for Aid to the Wounded and was again asked as a neutral to help. The atrocities in the Balkans created great horror in England. This was voiced by Gladstone in a famous political campaign. The Servians were defeated

at first by the Turks, but between the Russians and the Serbs there existed an unofficial treaty and so with the defeat of the Serbians the Russians entered to create the Russian-Turkish war of 1876 in which Turkey was soundly defeated.

With his reputation from the Franco-Prussian war William MacCormac was the recognised adviser to the Government in matters medical as far as the army was concerned and so he was asked at once by the Stafford Committee to furnish ambulances for the Turko-Serbian war. He went off next year with Lord Wantage to the Russo-Turkish war and was present at the Battle of Alexinatz, where he was able to use Listerian methods correctly with very gratifying results. He was a great success as an ambulance surgeon. In addition to his own personal operating he was able to distribute British surgeons and medical stores where they would be most useful. He was asked to go to Russia to give advice as a result of his success in this campaign. For this work he was made a Knight of Grace in the Order of St. John of Jerusalem – his proudest decoration. For many years he was chief surgeon to the St. John Ambulance Association.

Although not much Listerian surgery was used in the Franco-Prussian war and what there was, was done by the Germans, in the Russo-Turkish war it was much employed especially by Prof. von Bergmann. It is interesting to see that it was he who was to be one of those to advocate replacing antiseptic surgery by aseptic surgery a few years later.

MacCormac obviously had a disregard for the collecting of money as he went off to this war still deeply "in the red". He returned from this war, his second war, with enhanced reputation and loaded with exciting foreign decorations, some never seen in London before. He had already received the highest Prussian and French decorations for his services in the Franco-Prussian war. All this did not help much in any way the financial state of his struggling practice.

It is hard not to be impressed with his flamboyant personality. Perhaps his careless dress, his eccentricities, his red tie, and his tall walking stick were somewhat studied. But in himself, as trained by his father, he was an early riser and often a guest in his house was not impressed with a trot in the park at 6 a.m. or even 5 a.m. He always would drive up to hospital in a smart brougham with scarlet wheels and drawn by a fine matched pair of shining black horses. This love of display and his personal generosity endeared him to the students. By many he was called the "Irish Giant", but with the students as a whole he was always known as "Billy Mac". Although ostensibly careless in his dress he was meticulous in his diary and every month for twenty years his accounts were put out in detail. The upkeep of his stable was a large item and his cigar and wine bill was a regular expense. In 1866 we see he gave a ball to mark his silver wedding, and in the same year we see he has bought some very expensive diamonds for "dear Kate". In his diary we see he paid a bill of £2,319.12.8. It is sad that they never had any children.

He bought his first brougham in 1876. This is marked in red ink – a red letter day. Never a slave to convention, the story is told that a niece of his wife, a lady married to a distinguished German naval officer, once returned to the house in Harley Street more than upset because her host had attached – for the purpose of drying it – his pocket handkerchief to his stick and with the flag fluttering from his open carriage – like a lancer – had driven round the park in the afternoon

saluting and receiving salutes from his many acquaintances. He became a keen fisherman and it was said he could be seen in Cavendish Square teaching himself how to cast a fly. He played at golf; he was a late starter but a great enthusiast although a moderate performer, and he was a regular player on the links at Mitcham always accompanied by his dog. It is interesting to read in one of his letters of 1900 of how much he enjoyed Portrush and Rosapenna, which seems to bring him almost up to date with modern times.

On one occasion a new surgeon, a Mr. Cullingworth, was appointed to St. Thomas' – he had come from Manchester and was coldly received by the staff – probably appointed by the Board of Management. A meeting was held as the new surgeon's abilities were somewhat suspect. It was suggested that his operating should be supervised by a member of the staff, and Sir William was given the invidious task of conveying this rather unpleasant decision to the new surgeon. Sir William called on him one evening and explained that he felt rather ashamed of this decision. Cullingworth, having seen the famous surgeon to his carriage, came back to the hall to find waiting for him a parcel with a freshly killed salmon. Mr. Cullingworth's supervision by the surgeons was very short lived indeed.

Sir William was a lover of all animals, but especially dogs. In fact he was rarely to be seen without one. His most famous was Baron Bruno, a black curly haired Newfoundland retriever. This had originally been a gift to him from Mr. Farquarson, M.P. It was his daily companion on his early walks at 5 a.m. or 6 a.m. in the park. It was said to accompany him on his ward rounds and to hurdle over the patients' beds – perhaps with the National Health Service there might have been objections. In his diary he says that it did not attend his lectures but was always at his consulting room in Harley Street, in fact was part of the equipment, and it knew the difference between his old and new patients. It saw him off on his trip to South Africa; it was said to mope all the time that he was away. Although it went daily to get the paper, it did so with the tail down, and yet when the day came for the carriage to go to the station to meet the great man on his return from the Boer War, and Bruno was asked to get into the carriage, he seemed to know whom he was going to meet. In later years it was a touching sight to see Sir William, then aged 65, having to carry in his arms Bruno, who was no light weight, but was then getting blind and deaf, and no longer safe in the London traffic. He died, as quoted in the diary 23rd September, 1901, and was obviously one of Sir William's closest friends. It is nice to see in his collection of medals and decorations that Bruno's dog collar takes pride of place. He died just a few months before his master and was laid to rest after ten years of closest companionship and devoted service – "a splendid dog physically and mentally and in every way."

There were other dogs mentioned in his diary but Bruno was known to all – even mentioned in the daily press. Sir William on one occasion bought himself a bicycle and had a misunderstanding with a London cabby; the latter, having knocked Sir William down, whipped up his horse and made off but was "apprehended" and appeared in Bow Street next day, and, as a result of Sir William's account of the accident, was duly fined. We also see in the diary that in October 1901 Sir William sold back to the wine company his champagne – a sure sign of his failing interest in life.

Many references have been made to his striking appearance, and it is not unexpected therefore to find that he was one of those chosen by Sir Luke Fildes, K.C.V.O., in 1891 to portray the part of the physician in the painting "The Doctor", now in the Tate Gallery. Another one chosen was Sir Farquhar Buzzard's father, Dr. Thomas Buzzard.

In 1881 an enormous medical International Conference met in London. It was the seventh of these conferences to be held and for this meeting Sir James Paget was elected to be President, and William MacCormac was the general secretary. He was for such a conference the perfect person, a man with an international reputation, a fluency in many languages, and, with his foreign travel from his student days, as well as his two wars, he had many personal friends. With his visits to America he had many friends in the New World also. His friendliness, his meticulous care, which we see in his diary, made him the perfect choice for this difficult job.

With 2,500 delegates, to arrange the necessary scientific sections, their work, their play, their accommodation, was indeed a full time job. Not only did MacCormac devote himself wholeheartedly to the project at the time but as reporter and editor he had six months of work before the records and reports of the proceedings could be published in the various foreign languages. For all this he had to ask for temporary leave of absence from his hospital. The meeting was an outstanding success for British surgery. It had broken down barriers and much of this was due to MacCormac's personal charm. Although for the country it was a great success it certainly in no way helped his own personal bank balance, with his family debt not yet paid off. An immediate request was made to the Queen through Lord Salisbury and in December 1881 William was given the accolate of Knight Bachelor at the age of 45.

Belfast showed their pride in Sir William as twice during his term of office at St. Thomas' he was given an honorary degree. The first was in 1879 when he was given the M.Ch. of the Queen's University in Ireland, and again in 1882 he received the D.Sc. Hon. Causa with a gold medal from the Royal University of Ireland, as it was now known. It is given to very few to be given two honorary degrees by one's *alma mater*, but I suppose when Trinity College, Dublin, gave him two honorary degrees, an M.D. and an M.Ch. on the same day, it was an even more unique occasion.

A very close relationship existed between Sir William and his father, and among his letters of congratulation the one from his father is carefully preserved. His father died in 1886 – he saw a great deal of his son's success but was not there to enjoy his final triumphs.

In his diary he kept a meticulous account of his income, his intakings and his spendings. A careful note was made when he paid for his many paintings and etchings, as well as the day to day running of his house. His professional income was never great – a few thousand pounds per year – small compared with many others of that period, but he preferred to be an ambassador for British surgery, and every important appointment that he filled must have cost him money. It is clear he was never greedy to make money and his will when he died showed that he left some £23,000.

On being retired voluntarily or involuntarily from his hospital staff appointment

he was at first distressed and disappointed not to be given an extension even for teaching purposes. The medical staff felt that the rule must not be broken, and this same problem in relation to another St. Thomas' surgeon arose at the time of the inception of the National Health Service. Sir William automatically became a member of the consultant staff as an emeritus lecturer, and he was given the "Green Staff", which was the sign of becoming a member of the Board of Management. This was discontinued some years ago. However, as it happened, a more important work lay ahead for him and a bigger field. Instead of working for one hospital he was to direct British surgery through the medium of the Royal College of Surgeons of England. He had taken the first step in this direction when he was put on the council of the college in 1883 – the same year that Lister was made a Baronet. It was in this year that he went to the U.S.A. and at the Centenary of the Medical School at Harvard he met and made great friends with Oliver Wendell Holmes. It is always said that for the first period of eight years on the council of the college a councillor is learning his job and is not entrusted with serious or important committees, and so when he retired in 1893 MacCormac is already in his second period and now with time on his hands is able to throw his interest into the welfare of the college. We find him on the Court of Examiners in 1887 and in 1893 he gives the Bradshaw Lecture and 1899 the Hunterian Oration. In 1896 having served the college for 13 years he is elected President. This post is usually held for three years but there was actually no fixed period. However, as 1900 was the centenary year of the foundation of the Royal College of Surgeons, the occasion was to be celebrated with great festivities, honorary degrees, letters of welcome from foreign delegates and so on, and it was obvious that only one man in England could do this well. Sir William's term of office was extended to cover that great occasion. In 1897 he was made a Baronet by Her Majesty to mark her golden jubilee, although this honour later became the privilege of the President, both of this college as well as of the Royal College of Physicians. Sir William MacCormac was at this stage carrying great influence both inside and outside his profession. He was co-operating with Florence Nightingale, as we can see by the letters from her in his diary, on the training of nurses – and he was one of the important figures behind the scenes responsible in 1898 for the R.A.M.C. as we know it today. There had been difficulties and obstruction for a long time from the other units of the Army. It was actually finally, rather unexpectedly, at a Lord Mayor's banquet in London, with the Presidents of both colleges present, that the first intimation of the formation of the R.A.M.C. was announced by Lord Lansdowne.

As a close friend of the Royal Family, both socially and medically, he was called on to see the Prince of Wales, then 60 years of age, when the latter fell down the stairs when he was staying one week-end with Baron Rothschild in his English seat at Weddesdon, Berkshire, in 1898. It was said that H.R.H. had broken his kneecap. Sir William, possibly with the help of God, got a very fine result, and as a result was made Serjeant Surgeon to H.R.H. and was created K.C.V.O. by Queen Victoria. The Victorian Order had only been created 2–3 years before and Sir William was one of the first to be honoured. The Prince of Wales on one occasion pointed out to Sir William that his mother had paid for this decoration out of her own money! On the death of Queen Victoria in 1900 Sir William

became Serjeant Surgeon to the new monarch, King Edward VII, but he had died before the King's famous attack of appendicitis which delayed his coronation, and it was Sir William's friend, Sir Frederick Treves, who had to do the necessary operation.

In his years on the Council as President he did much to enhance British surgery. Broad, well built, and strikingly handsome, soft voiced, singularly courteous, he could at times be apparently (but only apparently) inattentive to what was being said to him, but nothing was further from the truth. His industry, his mastery of detail, and the rapidity of his work and his Irish bonhomie made him a first rate organiser. He was as widely known on the Continent as in England and Ireland, and he broke down the insularity of British surgery. He learned and taught what was being done both at home and abroad. He was the most decorated practising surgeon of his generation, and each medal was a landmark of an incident in a life filled with incidents. His Baronetcy was one of the highlights of his life. He has kept in a book the letters received at that time. It is interesting to see so many from members of the old Royal Victoria Hospital staff. Among the many paper cuttings there were some suggesting that it should have been a Peerage, but his senior, Lord Lister, had just been made a Baron. Lister was more academically and scientifically qualified, and was in addition President of the Royal Society.

In 1897 to mark his Baronetcy the students and friends in Belfast decided to present him with his portrait in oils, and so Mr. Harris Brown was selected, and the portrait we see tonight was presented to him. He is said to look pale, but he has just recovered from a very serious illness, including an empyema of the chest. He is wearing the insignia of a Knight of St. John, his favourite British decoration. This portrait was unveiled in the Library at Queen's before a large audience by the Marquis of Dufferin and Ava – "The Great Marquis". There are two other portraits, by Prince Troubetskoi, one hangs in the Council Room of the Royal College of Surgeons and the other, which was the private property of Lady MacCormac is now with many others of Sir William's more personal effects with Mrs. Henry MacCormac in Sussex. In his diary we see a bill of £42 was paid to Prince Troubetskoi, the painter – a great personal friend. I suppose this money only paid for the frames. Sir William's students had a bust prepared of him in 1897 by Alfred Drury, A.R.A. and this is kept in the main hall at St. Thomas' and a replica was given to the College of Surgeons in 1903 by Lady MacCormac and is in the main entrance hall of the college. There is another in bronze in the Royal Victoria Hospital, Belfast. None of his portraits or his busts suggest that he had a sense of humour; they all make him too serious and severe. The bust of himself (Fig. 4), his father (Fig. 3) and his wife were given to the Museum in Belfast, also by Lady MacCormac in 1923, and I hope in the New Museum they will get a more prominent and worthy position. In 1897 M. Gambon the French Ambassador to the Court of St. James, informed him that the President of the French Republic wished to make him a Commandeur in the Legion of Honour. He had for many years held this honour in a lower category. This was to mark his retirement after twenty years from the French Hospital in London. He was given a similar tribute from the Italians for his long service to the Italian Hospital, when he retired from it at the same time. These hospitals and Queen

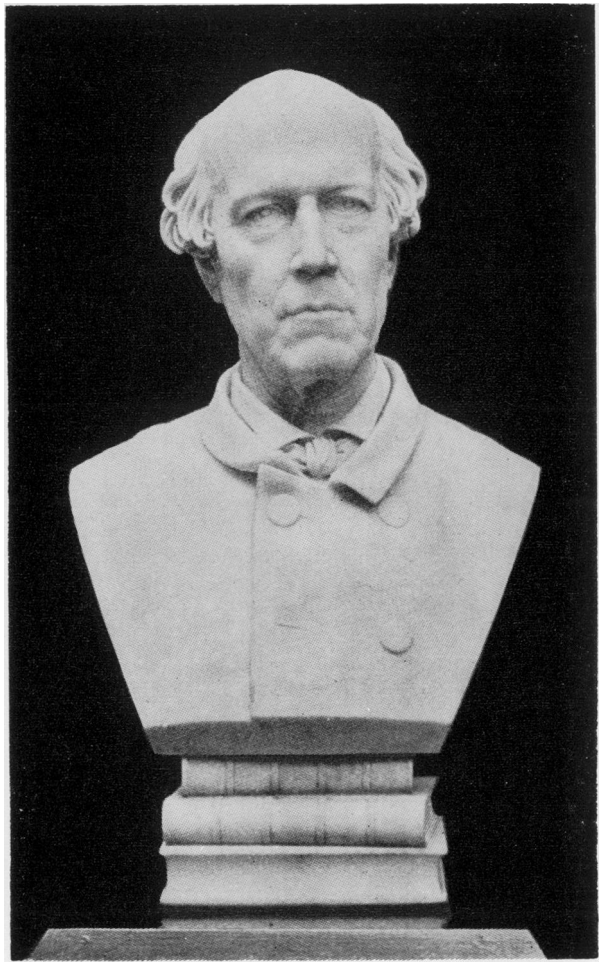


FIG. 3. *Henry MacCormac*

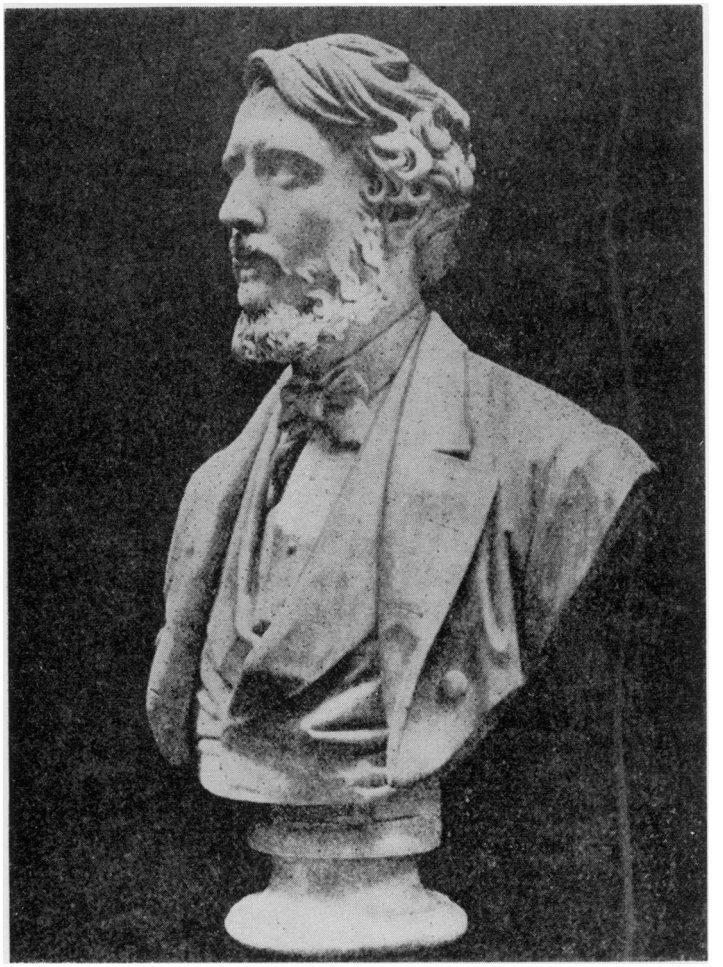


FIG. 4. *Sir William MacCormac, Bart.*

Charlotte's were his only other appointments in London in addition to St. Thomas'.

In 1886 his father died, just too soon to see his son's greatest successes. In Sir William's diary we can see a regular cheque being sent to his father and certainly the obituary notice to his father and written by the son shows the great regard he had for him. This was a deep and mutual affection.

Although outwardly apparently careless in dress, in money matters he was meticulous. One month we might find that he had spent £130 for a trip to Norway and Sweden and Copenhagen, or on another £27.5.10. – his expenses to attend a B.M.A. annual meeting in Belfast in 1884. He gave an expensive house party in 1884, costing him £100, and he also had a trip to Wiesbaden in the same year. This must have been a vintage year, as in December he finally paid off his debt to his brother-in-law for the original loan of £4,700. An account with the vet. for the care of his dogs often appears and there were large bills in 1879–1894 when he obviously made vast structural changes to No. 13 Harley Street.

When he was no longer "in the red" we see him spending much money on pictures, etchings, etc., mostly for himself. None of these seemed very expensive although they did contain such well known names as W. L. Wylie, Corot, Whistler, Lawrence, Birket Foster, etc. Mixed up with his pictures he seemed to buy a lot of salsuma ware – plates and jars. It would appear that it was his wife who was the collector of Japanese china. His bill for this for the first year was £124. A new watch cost him £42, and in 1885 he bought a pair of new beds at £33.10.3. It is very rare for a man in his own handwriting to keep such detailed accounts – some rather trivial purchases.

He was very proud of his brougham and certainly his stable; the repairs and the coachman's outfit seemed to cost him a lot of money. There is a bill for Kate's ticket in 1885 to Hamburg, but next week we find one for himself to Hamburg, Austria, the Tyrol, Italy, Switzerland, and Paris. It is not much wonder that he never had much money at the end of the year and we can understand the modest size of his estate when it was finally published.

On one page in his diary he gives the dates and causes of deaths of many of his relatives: his father, his mother, "Darling Sister May", "Beloved Sister Ann", and on the following page he keeps a list of his dogs – "Judy" born 27th June, 1878, "Mosphin" bought in 1879 from Mrs. Huffnell of Dalkey, and then a note, Poor dear little affectionate Mossy (Mosaphin) died May 4th 1893 – just short of 14 years old. But it was "Bruno" the black curly haired Newfoundland retriever which was a constant friend in his later years; in fact they were almost inseparable.

His general way of life was expensive. His clubs – The Athenaeum, The Reform, The Marlborough – were the most select in London at that time. The Marlborough was almost a private club for the personal friends of Prince Edward, in fact it was H.R.H. who proposed Sir William's name for membership. It was the Duke of Clarence who seconded his nomination. It was fortunate that when at the early age of 57 – no longer able to continue his hospital work – so many other important appointments came his way. Few people realise the influence that he had behind the scenes in military and medical matters.

It perhaps was somewhat surprising to many people that when very much occupied with the preparations for the centenary meeting of the Royal College of Surgeons which was only eight months away he should choose to absent himself

for six months to go off to still another war! He was at that time in the fourth year of his Presidency, yet in November 1899 Sir William left to go as chief consulting surgeon to the British Forces in South Africa. It is difficult to understand how the chief actor in the centenary festival could go off to return only eight weeks or so before the meeting itself. During the voyage out he was able to write the address of welcome and keep in touch with those at home. He kept a daily diary of his trip. It was almost six months from beginning to end, although the latter part of a journey was a leisurely one by the East Coast, calling at Cairo and through the Mediterranean. The send-off that he and his younger colleague George Makins got from the St. Thomas' students who came to Waterloo Station to see the boat train off he obviously thoroughly enjoyed. George Makins was carried by the young men shoulder high up and down the platform, but they seemed to respect Sir William – it may have been his older age or his heavier weight. There were some 300 students there in all. It is interesting to see that George Makins, blooded in the South African war, was to bcome consultant surgeon in World War I in France, and as Sir George Makins to continue the military influence of St. Thomas' staff which was later seen in well known men like Max Page and Philip Mitchiner.

Bruno came down to the station and took a sad farewell, but Kate went on the boat train to see him off at Southampton. Other consultants followed later. Frederick Treves from the London Hospital followed in the next boat with a few nursing sisters. It was he who was to succeed Sir William as surgeon to the Royal Family. There was also Sir William Stokes from Dublin, nominated by the Royal College of Surgeons in Ireland – he actually died on active service. The Irish College of Surgeons in World War I was again asked to nominate a consultant surgeon and so Andrew Fullerton from Belfast – later Professor of Surgery – went to France to bring honour to this school and himself, with his pioneer work in genito-urinary injuries as well as blood transfusion and wound sepsis.

Sir William's day to day handwritten diary was kept in the form of letters to his wife who, being an adept typist, had them typed and now bound in one volume they form a very interesting record of his time there. He described in detail his various visits to the front line, his operating in the forward area as well as in the base hospitals. He describes seeing at Frere an ambulance convoy of ten waggons, each drawn by ten mules, and with three surgeons in charge. In addition there were 56 army hospital stretcher bearers and 300 volunteer stretcher bearers. He pointed out that the tracks were so bad that no wounded man could endure the bumping, and so most people were hand carried for, in some cases, several miles – a great contrast to our ambulance system of the last war and of today. He was fortunate to escape the shells at Colenso, but compensated for this by falling over a tent rope. Being a big and heavy man the fall was quite serious and he had a very painful knee for some considerable time. At Colenso he had the tragic experience of seeing young Lieutenant Roberts, the son of "Bobs" lying fatally wounded with through and through bullet wounds in his lower abdomen which had shattered his pelvis and his pelvic organs. There was nothing to be done; he left him to the care of Fred Treves who looked after him till he died. This, the only son of Lord Roberts, was awarded the Victoria Cross for his gallantry in trying to save the guns, a decoration his father had also won many years before.

Sir William, like most of the soldiers, was himself in hospital for a few days with dysentery. It would appear to have been a fairly mild attack and to have responded fairly quickly to a bismuth mixture. He certainly must have recovered from it fairly well as he was able to stand up to the rigours of the rest of the campaign, and to undertake the hard work of sight-seeing at the Pyramids in Egypt on the way back.

A pleasant outcome of his stay in hospital was that iike all wounded and sick soldiers he was given the "Queen's Chocolate Box", a personal present from the Queen. "The Queen's Tin" he kept with his decorations as one of his treasured possessions. He celebrated his 65th birthday in South Africa with a champagne party and it was soon after this that Lord Roberts, the Commander in Chief, wrote to him a personal letter pointing out that he felt he had reached an age to no longer stand up to forced marches and suggesting that he should go home. This, I am sure, he was intending to do at any rate as the time was approaching for the London meeting.

He was very critical in his diary of the British generals, and particularly Buller for his handling of the Ladysmith affair, and being now himself a hardened campaigner – this being his third campaign – we must suppose he had a reasonable knowledge of military affairs. He had unbounded regard and respect for the Commander in Chief, Lord Roberts, and kept praising two other Irish men – one a young General called John French and the other a more seasoned soldier, Sir George White. The journey home from South Africa was much more strenuous than the pleasant easy sea voyage when outward bound on the s.s. Birton, when he was able to rest, to play deck games, and to prepare his address for the centenary meeting. He had many friends on board going out, among them Lord Basil Blackwood, son of the Marquis of Dufferin and Ava, who was going out to see Lord Ava who was later killed fighting. He always seemed delighted to meet people with Northern Ireland connections. He had a touching farewell at Southampton from "Dear Kate" and was delighted to have a telegram from her awaiting him at Madeira; it was here that he heard that Ladysmith was now cut off. His first stop was at Capetown, where he saw General Buller who said he was hoping soon to go to the aid of Sir George White at Ladysmith. at this time Buller was shortly going to be replaced by Lord Roberts who was now due to start from England. In his diary he was not an admirer of Kitchener; he thought he got the glory in the Sudan but it was Hunter who did the work. Perhaps he knew that Kitchener was never very much in favour of medical men. Kitchener's famous remark had never been forgotten: "You want pills, I want bullets, and bullets come first!"

He gave great details of his journey to the front mostly done by hospital train. He set up a hospital at Frere for General Buller. It was in a wonderful situation 12,000 feet up, with wonderful scenery. The rarified atmosphere meant that he was always thirsty and even with unlimited soda water and champagne he still remained thirsty. He kept stressing the fact that the ground was so rough that carts were no use for transporting the wounded; they had to be hand carried in some cases from 5–6 miles and for this a total of 2,400 stretcher-bearers had been enrolled. He was interested to pass the scene of the armoured train disaster where Winston Churchill had been taken prisoner. After the battle of Colenso he had

a good deal of personal operating to do. He had two operating tents with two operating tables in each. It was in this battle that he found young Lieutenant Roberts mortally wounded, and it was here that he had the severe fall when he tripped over the guy rope of a tent. He said he was black and blue all over for several days.

Many wives were making the trip out to South Africa, and at this stage he wired to his wife not to come. He sent her home instead as a present some fruit, a set of antlers for the hall, and some ostrich feathers! To some who served in more recent wars this may all sound rather amusing. His house was quite a museum filled with various trophies that he had collected in various trips abroad – bullets, shell cases, etc. In addition he did not forget his own medical school, and there are still – although some have been lost – bullets, specimens and other relics which he sent home to the hospital museum.

Mrs. Makins came out as sister in charge of No. 1 General Hospital and Fred Treves had a small group of well trained London Hospital nurses with him. In his diary he described vividly the dust storms and a plague of locusts; so many of these lay dead on the railway line that the wheels of the engine could not get a catch on the lines. He mentions with great irritation getting his bag stolen with opera glasses, valuable papers and notes, and worst of all, his stock of cigars from England.

About this time and before coming home he paid a visit to Lord Roberts at the Modder River. On March 1st 1900 Ladysmith was relieved at last, thanks to Lord Roberts attacking from the rear. This was a wonderful night in South Africa, as indeed it was in London – bands, fireworks, terrific enthusiasm with Rudyard Kipling making his famous speech at the dinner in the Mount Nelson Hotel at Capetown: "This victory has consolidated the Empire; the colonies are prouder of the Mother Country than they have ever been before." This was said 67 years ago! Certainly Lord Roberts, who arrived in South Africa in January to take over the Command from Buller, had made wonderful progress in a short time compared with the static operations of Buller. Ladysmith does not make such pleasant reading with the people who had to live on horse flesh and had only cart wheel grease with which to fry their biscuits. It could only have lasted three weeks more. General White himself was very ill, and Fred Treves, who took over control, would have described it as a modern Belsen.

By now Sir William, having travelled 6,500 miles, is ready for home, and in his diary is preserved a personal letter from Lord Roberts thanking him for the wonderful help and inspiration that he had given to all. He chose to do the journey home in what might be called the easy way with short stops at the various towns on the East Coast – Lorenzo, Marques, Beira, Mozambique, Dar-es-salaam, Aden, Suez, Cairo. This was obviously much more tiring than a simple sea voyage. He was sorry to return and leave the war not yet finished. He pointed out that the total number of troops sent to South Africa was 200,000 – ten times the number that went to the Crimea or to Waterloo. At Alexandria he got an Italian boat. He called at Naples to find Kate and some of her relatives waiting for him. With a call at Rome, Turin and Paris, where he stopped to have lunch with a very old friend, Professor Pozzi, he finally arrived in London on April 26th in time for dinner. Coming through Calais on the way back he was waylaid by

reporters and had to give a press conference. He was always "news" wherever he went.

On his return to London Sir William had at once to get down to the serious business of the final preparations for the meeting in July. Although the barbers had actually separated from the surgeons in 1745 it was only in 1800 that King George III had given the surgeons the Charter and this meeting was to celebrate the centenary of the incorporation of the surgeons of England by a Royal Charter. The meeting was intended as a welcome to illustrious guests from many and distant countries as well as great surgeons and personal friends, and also to welcome guests from our own country from the Church, the Law, and the ancient seats of learning, as well as to report on the progress of surgery not only in Britain but in other countries. The most distinguished Fellow there was naturally Lord Lister, the President of the Royal Society, who always on such occasions with his usual humility insisted that his discovery and suggestions arose directly from the work of that famous French chemist Louis Pasteur.

When the barbers and surgeons separated it was the barbers who were left with their elegant hall, its livery and its plate, which meant that the new company of surgeons had no fixed abode till they finally settled in Lincolns' Inn Fields. This meeting was an opportunity to elect H.R.H. The Prince of Wales to be an Honorary Fellow, and as it happened he was the first Honorary Fellow to be elected. Three years before this the idea had been mooted of giving Honorary Fellowships but it was found that the Charter did not allow it and so a new Charter was drafted, and it was as a result of this that it was possible to honour the Prince of Wales. It is interesting that in doing so we were doing in reverse what Henry VIII had done when he gave the freedom to the surgeons to practise surgery as seen in that well known picture by Holbein, and now it was the privilege of the surgeons to give Prince Edward the freedom to practise as a surgeon.

The Fellowship was actually given privately to H.R.H. two days before the meeting at Marlborough House and not at the college, although all subsequent members of the Royal Family have come to Lincoln's Inn Fields to receive the Honorary Fellowship.

Although Sir William had just come back to England only two months before this important event he was not allowed much time to himself. Two days after disembarking a very special dinner was given at the Reform Club by Lord Roseberry to honour both himself and Mr. Fred Treves. Both men charmed their hosts and the other guests by the stories of the South African Campaign, but Frederick Treves got into considerable trouble for one remark which for many weeks produced letters in the Press. He said that there were two main plagues in South Africa – one was flies and the other women. The flies were easily dealt with, they could be got rid of by sprays or smoking, but they did disappear at night. These ladies thought that they were a type of Florence Nightingale, but they came out dressed for a picnic. "Hell hath no fury like a woman scorned." It is interesting that the same comments were made by Marion Sims at the time of the American Civil War.

With the publications of the honours for the South African War in 1900 we find that Sir William has been made a K.C.B. – a Knight for the fourth time. Some of the London Companies decided to honour him and in June the Salters

made him a Freeman, presenting him with an elegant casket and scroll. Within the next few months three other London Livery Companies admitted him – The Leather Sellers, The Carpenters, The Barbers. To be made a Freeman of four companies is surely unique.

The centenary meeting was a great success. Two Honorary Fellowships were given to two great statesmen – Lord Salisbury and, representing Scotland, Lord Rosebery, and after that 35 distinguished graduates representing surgery in all parts of the world were presented – a few of the foreign guests made speeches of thanks, but for all it was a wonderful occasion. Sir William's address of welcome with H.R.H. the Prince of Wales present was published later in book form. This was the highlight of Sir William's career. Many said he looked tired and that he had never fully recovered from his dysentery in South Africa. Others said he looked fitter than ever. Whilst the papers were full of the success of the meeting Sir William was having to answer unpleasant letters in the press complaining of the bad medical arrangements in South Africa. This was started by a war correspondent of the Times, who was also a member of Parliament, and obviously a troublesome fellow. Heated letters followed with support for the R.A.M.C. coming from Lord Roberts, Dr. A. Conan Doyle, and Rudyard Kipling. The last being always somewhat outspoken perhaps did his cause more harm than good. It did mean, however, that a full scale enquiry was held and the correspondent, Mr. Burdett-Coutts, who had written on the "War Hospital Horrors", had to withdraw his remarks. Watson Cheyne and Lenthal Cheatle, well known London surgeons who had also served in South Africa, were pulled into this controversy.

In his three wars Sir William had seen important medical progress. In the Franco-Prussian war although Listerian antisepsis had been invented yet it was not fully accepted, and carbolic acid was in very short supply. However, chloroform, which was missing in the Crimea, had been available for all. In the 1875 war antiseptic surgery was in full swing, accepted by all – with dramatic results, and in the Boer War for the first time at the base hospital the new toy of X-rays was being used.

In the autumn of 1900 after the meeting MacCormac had a well earned holiday, although he had to attend many dinners to celebrate his various successes. The Belfast Graduates formed a society of which he was the first President. They gave him a magnificent banquet. This society is still in existence. Lord Roberts, although asked, was unable to attend. The Queen asked Sir William to go down to dinner with her at the Isle of Wight, and the Prince of Wales had now fully recovered having had a convalescence in the Royal Yacht "Osborne" off Cowes. There was a dinner to celebrate the work done by Field-Marshal Sir George White, a very famous Ulsterman. Sir William had a very busy time and was glad to escape to Northern Ireland. We find that on 8th September 1900 he played golf at Portrush followed by two weeks at Rosapenna – a game he enjoyed although only a moderate performer.

Sir William was described by some as the male counterpart of Florence Nightingale, and it is interesting to see that they both served the same hospital. After Lister he was the best known surgeon in England and whilst Sir William was covered with foreign and political decorations Lister got the highest academic rewards that scientific bodies could give. To be made President of the Royal

Society is the highest honour possible and to be recognised by 80 honorary degrees from all the old universities – British and foreign – stamped the character of the man.

In October of the same year we see a letter to the editor of the Northern Whig Belfast, suggesting that Sir William be made a Freeman of the city. The Lord Mayor, however, was not in favour as arrangements had been made to honour Lord Roberts, and to do both at the same time would have been impossible.

With so much work to do one might think that Sir William over the years might have neglected his home, but this was far from the case. He had a very happy home life; he had enlarged at great expense some years previously No. 13 Harley Street to make a library and den for himself, and this he had fitted with books, etchings, and the various trophies, guns, photographs, and other souvenirs that he had brought back from his various wars. The Queen chocolate box from South Africa took pride of place. There was a shell case from "Long Tom" – a shell fired at Ladysmith, many Zulu relics, as well as his many decorations, hospital staff groups. In addition Lady MacCormac was a great collector of Japanese porcelain. There was a large photograph of him operating at the Bellevue Hospital, New York. There was his own portrait in oils – now in the College of Surgeons, and an interesting one of Lady MacCormac done by the French painter Dupuis. Perhaps the main interest of this latter portrait is that the painter was irritated by the unfavourable criticism of his work by the editor of a French newspaper that he challenged him to a duel. This took place and Dupuis was killed.

No. 13 Harley Street had an interesting background as it was the Town House in the Regency period of the notable Beau Brummell. Always popular with his juniors in his younger days – the parties at his house were something to be remembered, as well as the picnics in the country. A day on the river was something never to be forgotten. Everyone had to help but Sir William did much of the hard work himself. He always kept young in spirit. He always kept open house to the students and his friends at home from abroad. Although generally very popular, like most flamboyant people he usually had a "good press", yet not always so. In one or two papers it was said of his speeches that "this surgeon seemed to sympathize more with slaughter, and, indeed, that the aim of war was to kill." Freeman's Journal said, speaking of Sir William: "It would appear that it is killing rather than curing that excites his enthusiasm." Certainly in his lectures and speeches he often went into great detail regarding the type of bullet – dum-dum, explosive or soft nose, and whether the rifle was a Mauser or a Lee-Mitford.

Not enough mention is made of Lady MacCormac, who went hand in hand with him for forty years. Her home and his care seem to be her main interests. She loved London and said that New York, which they visited three times, would be her second choice. They also greatly enjoyed Russia – especially Moscow. In this modern period of easy transport we do not realise the hardships that such journeys must have entailed.

In the autumn of 1900 we see from his diary that private practice had diminished. At this stage he gave up his staff appointment to the French and Italian Hospitals in London to which he had been attached for twenty years. The light had, however, to a certain extent gone out of his life. I suppose like Alexander the Great,

he had no more fields to conquer. In 1901 he gave up his final staff appointment which was that of visiting surgeon to Queen Charlotte's Hospital. In March he was the guest speaker at the Hunterian dinner with again his theme being the medical manpower of the South African war.

In August 1901 he attended one of his last big meetings when he was the guest speaker at the annual meeting of the British Medical Association at Cheltenham. His subject again was "Gunshot Wounds – Old and New." I am afraid that, like his father, he was starting to ride his hobby horse too much, sufficiently, certainly to make people think that he only had one idea. However, in October 1901 he opened the Post Graduate Medical College attached to the West London Hospital. He always performed well on an occasion of this sort although he did make it the opportunity to have a shot at the War Office and their meanness to the medical officer. In the autumn of 1901 people noticed that he was failing somewhat. In the summer he had had a holiday at Lahinch and seemed in excellent form, although the standard of his golf was not up to the standard of the golf course. We see from October there were fewer public duties in his diary. His final illness was only a matter of two or three weeks. He had great pain in his back and suffered from insomnia, and making no progress at home he agreed in early December to try the waters at Bath. He seemed to benefit greatly the first day and decided to get up even earlier the next day but was overtaken by a heart attack and passed away very suddenly. He was 66 years old and relatively young in mind and body and his death was felt to be premature for a man of his physique, his athletic build, and above all his family history. He was working hard, like his father, on a book at the time of his death, on operative surgery, which was never published. It was said of him by some, as was said of John Hunter, "The great surgeon had gone to his rest, cut off in the middle of his glory – he died in harness".

He died on 4th December, 1901, and was buried five days later in the central avenue at the cemetery in Kensal Green. He had been a fairly regular attender, especially after the South African campaign, at the Church of St. Peter in Vere Street. The funeral naturally was an enormous one, requiring two further hearses to carry the floral wreaths. His wife survived him, living in Albert Court, Kensington, London, S.W., in adequate comfort with her four maids till her death in 1923. One cannot be too grateful to her for leaving the busts and other mementoes to remind us of a very great man. Someone described him as the most important Ulster medical man since Hans Sloane. Sir William's work with the younger generation was one of his most important functions. On giving out the prizes he always reminded them that work in life was not over by gaining the M.D. and that they must in addition keep up outside interests – something which he practised himself. Being a general surgeon he was rather opposed to sub-specialization which even then he saw was starting to appear. His exhibitionism and his studied eccentricities did not mask a generous kind and warm hearted man with a love of simple things and although he walked with kings he never lost the common touch. In a stirring life it would be unfair if we do not stress the support that he got in all his problems from "Dear Kate".

Belfast will always remember of Sir William that although a Londoner by adoption he was proud of his Ulster roots and his Ulster friends.

His vast collection of decorations included :

Knight Bachelor
Baronet
K.C.V.O.
Crown of Italy – Commander and Knight Commander
Naval Merit Award of Spain
Order of Danebrog
Knight of Malta
Queen's South Africa Medal, 3 bars
Queen Victoria 60 year Commemoration Medal
Legion of Honour – Commander-Chevalier
Order of the Crown of Prussia
Prussian Commemoration Medal
Order of Medjidie of Turkey
Polar Star of Sweden
Order of Takavo Sørbia
Order of Tower and Sword of Portugal

The lives of these two men make an interesting contrast. As father and son they must have had many of the same genes, and yet in each they showed themselves in a different way. The main feature common to both was a restlessness. *With father* – the physician – it was a mental process, an irresistible urge to write, to put on paper his thoughts and his ideas. As a student till he died at the age of 86 he was still studying, and his final magnum opus – a Dictionary of Philology – was never finished. He was outstanding in the number of foreign languages he could speak, some twenty in all. The range of his writing seemed to follow no fixed pattern. He wrote with equal freedom on art, sanitation, foreign travel, religion, tuberculosis and lunacy, humane killing of animals, fever, cholera, or art in general. Unfortunately his manner of writing was diffuse, not easy to read, and rather tiresome with too much verbiage. Sir William Whitla speaking of him some years later said, "Henry MacCormac was a sage or a seer; it will be fifty years before people will understand him." This is true, but an understatement. Yet this original thinker has added little to the practical side of the profession of medicine.

With his son the restlessness showed itself in a constant desire to do something – to act quickly, to make decisions quickly, for better or worse – in fact the temperament of the surgeon as compared with the physician. There was not the same scientific thought behind what he did. He worked in a bigger field, he mixed more with people in the world and perhaps he was fortunate in timing his life in that he lived through the exciting advances of the latter half of the century – but he had a mind willing to adapt itself to progress and eager to accept new things which his father would not, and all his own personal charm carried him to many successes that would not have come the way of a more retiring man. To many it would appear that William, perhaps although lacking the original brain of his father, did in a practical way more for British medicine. However, each individual reader must make his own assessment of the respective worth. No matter what we think they individually and together gave a colour and a personality to the work

that they did and as father and son they linked over the century these two cities together.

ACKNOWLEDGEMENTS

About this paper I might say, as was said by Montaigne 400 years ago, that it is a posy of other people's flowers and the only part that is my own is the ribbon that holds them together.

This paper is the result of other people's research, and it would be impossible to acknowledge them all. It would have been impersonal and merely a catalogue of progress and successes if I had not had access to so many private papers, diaries and letters. I was allowed to use them all by the kindness of Mrs. Henry MacCormac, and the paper could have been much better written by her.

BOOK REVIEW

SURGERY IN INFANCY AND CHILDHOOD. By Wallace M. Dennison, M.D. (Glas.), F.R.C.S.(Edin.), F.R.C.S.(Glas.) Second Edition. (Pp. xvi+597; figs. 340. 70s). Edinburgh and London: E. & S. Livingtone, 1967.

THIS second edition of a useful and well-received handbook, first published in 1958, has been eagerly awaited. Since the first edition was published the senior author—Matthew White (one of the founders of paediatric surgery in the British Isles) has died. The new edition is largely the work of Mr. Dennison, but it is also a handbook of the policy and practice of the large Glasgow centre of paediatric surgery and a reflection of the very great general experience of that centre. The author has been assisted by many distinguished colleagues in paediatric surgery in Glasgow, and by other colleagues from those other branches of Medicine that are engaged in the treatment of children.

The author emphasises that the book is intended for senior and medical students, family doctors and hospital junior medical staff as well as for nurses and midwives, and not for specialist paediatric, orthopaedic or plastic surgeons. For these categories of readership this well-written, well-designed, and well-produced book provides an excellent introduction to the elements of paediatric surgery, and goes a very long way to redressing the imbalance of current teaching and text books in general surgery and paediatrics with regard to the surgery of the neonate, infant and child.

The first nine chapters are concerned with general aspects of surgery in childhood, particularly in the neonate, covering such aspects as cancer, anaesthesia, surgery in the newborn and elective surgery. There is a particularly useful chapter on trauma which deals with many of the types of injury peculiar to this age group which are usually ignored in the standard texts and which give rise to much difficulty for casualty officers new to children's work. The rest of the book is along formal, systematic lines, and covers the whole range of general surgery, including reference to elementary orthopaedic, maxillo-facial and thoracic surgery. There are no serious omissions, and reviewed in the light of the author's intentions there can be no serious criticisms of the substance, while minor criticism in detail from the point of view of a specialist paediatric surgeon would be inappropriate. It is profusely and usefully illustrated, and of particular merit are the carefully selected and very up to date references for more advanced reading.

This book can be highly recommended for essential reading for all grades of junior hospital staff, whose work to any extent involves children. It would also be of particular value to paediatric nurses in training, and a sound and easily read text on paediatric surgery for higher examinations in surgery and child health.

W.C.

that they did and as father and son they linked over the century these two cities together.

ACKNOWLEDGEMENTS

About this paper I might say, as was said by Montaigne 400 years ago, that it is a posy of other people's flowers and the only part that is my own is the ribbon that holds them together.

This paper is the result of other people's research, and it would be impossible to acknowledge them all. It would have been impersonal and merely a catalogue of progress and successes if I had not had access to so many private papers, diaries and letters. I was allowed to use them all by the kindness of Mrs. Henry MacCormac, and the paper could have been much better written by her.

BOOK REVIEW

SURGERY IN INFANCY AND CHILDHOOD. By Wallace M. Dennison, M.D. (Glas.), F.R.C.S.(Edin.), F.R.C.S.(Glas.) Second Edition. (Pp. xvi+597; figs. 340. 70s). Edinburgh and London: E. & S. Livingtone, 1967.

THIS second edition of a useful and well-received handbook, first published in 1958, has been eagerly awaited. Since the first edition was published the senior author—Matthew White (one of the founders of paediatric surgery in the British Isles) has died. The new edition is largely the work of Mr. Dennison, but it is also a handbook of the policy and practice of the large Glasgow centre of paediatric surgery and a reflection of the very great general experience of that centre. The author has been assisted by many distinguished colleagues in paediatric surgery in Glasgow, and by other colleagues from those other branches of Medicine that are engaged in the treatment of children.

The author emphasises that the book is intended for senior and medical students, family doctors and hospital junior medical staff as well as for nurses and midwives, and not for specialist paediatric, orthopaedic or plastic surgeons. For these categories of readership this well-written, well-designed, and well-produced book provides an excellent introduction to the elements of paediatric surgery, and goes a very long way to redressing the imbalance of current teaching and text books in general surgery and paediatrics with regard to the surgery of the neonate, infant and child.

The first nine chapters are concerned with general aspects of surgery in childhood, particularly in the neonate, covering such aspects as cancer, anaesthesia, surgery in the newborn and elective surgery. There is a particularly useful chapter on trauma which deals with many of the types of injury peculiar to this age group which are usually ignored in the standard texts and which give rise to much difficulty for casualty officers new to children's work. The rest of the book is along formal, systematic lines, and covers the whole range of general surgery, including reference to elementary orthopaedic, maxillo-facial and thoracic surgery. There are no serious omissions, and reviewed in the light of the author's intentions there can be no serious criticisms of the substance, while minor criticism in detail from the point of view of a specialist paediatric surgeon would be inappropriate. It is profusely and usefully illustrated, and of particular merit are the carefully selected and very up to date references for more advanced reading.

This book can be highly recommended for essential reading for all grades of junior hospital staff, whose work to any extent involves children. It would also be of particular value to paediatric nurses in training, and a sound and easily read text on paediatric surgery for higher examinations in surgery and child health.

W.C.

ASSESSMENT OF TREATMENT OF PLANTAR WARTS

By A. G. McKNIGHT, M.B., B.Ch., D.Obst. R.C.O.G.
General Practitioner attached to The Skin Department, Belfast City Hospital

THE treatment of plantar warts is occupying an increasing proportion of the time of dermatological externs. In Northern Ireland attendances of patients suffering from plantar warts at dermatological externs increased from 1,081 in 1962 to 1,267 in 1966, a rise of 17.2 per cent.

Many treatments have been used:

1. Thomson (1943) first described the treatment of plantar warts by using 3 per cent formalin – he cured 33 out of 39 patients.
2. Anderson and Shirreffs (1963) treated 192 cases of plantar warts with (a) formalin soaks; (b) plain water; (c) inert tablets by mouth. Over 60 per cent in each of these groups were cured.
3. Vickers (1961) used daily paring with 3 per cent formalin soaks applied for 15 minutes. In a survey of 646 patients, 80 per cent of all plantar warts were cured in six to eight weeks' treatment.
4. Rulison (1942) stated that warts have no specific treatment and also that cure was more probable in single than in multiple warts.
5. Duthie and McCallum (1951) using elastoplast alone cured 60 per cent of their cases. By combining elastoplast and podophyllin they had a higher percentage of cures.
6. Barr and Coles (1965) using (a) Nobecutane D; (b) 3 per cent formaldehyde in Nobecutane; (c) 6 per cent formaldehyde in Nobecutane, cured 47.8 per cent, 55.4 per cent and 58.7 per cent respectively in the three series treated. They eliminated at the first examination all cases in which they considered spontaneous cure would take place.

This paper is an evaluation of treatment of patients with plantar warts seen at the Belfast City Hospital in 1966.

The series can be divided easily into two parts:

a. Patients referred to the Outpatient Department, Belfast City Hospital, by their own general practitioners.
b. Patients referred to the Inpatient Department, Belfast City Hospital, by other dermatological externs. These patients were referred because operative removal of the warts under general anaesthesia was considered necessary.

The first series comprise of 130 patients referred to the Outpatient Department, Belfast City Hospital. Of these 130 patients, 17 did not attend at all and a further 22 lapsed after only one or two attendances.

Eighty-three patients were treated by the following regime:

1. 5 per cent formalin to be applied as soaks to the warts for half an hour every evening.
2. The warts to be pared down every three days with a number 3 scalpel and number 15 blade.
3. The area surrounding the warts to be covered with a thin layer of Vaseline.
4. The warts to be kept covered with a wide strip of elastoplast.

The patient and the parents had the treatment carefully explained to them and were given a treatment pro forma. A similar pro forma was sent to their doctor.

All 83 patients were cured, 75 within three months and the others within six months; this represents a cure rate of 100 per cent.

The eight other cases were dealt with as follows—two required no treatment as the warts were dead, one needed general anaesthesia as he was a spastic, and the other five insisted upon surgery under local anaesthesia.

The second series relates to the question of operative removal of plantar warts under general anaesthesia. In removing plantar warts by this method, three factors have to be considered:

1. Is the risk of a general anaesthetic justified to remove plantar warts?
2. Is the result of removal under general anaesthesia better than treatment by more conservative measures?
3. Is the possible production of fairly severe pain for two to three weeks after removal under general anaesthesia better than pain of much less severity over a longer period?

Unfortunately the answer to the third question does not appear in this paper because we did not consider this question in the original pro forma.

When a patient was referred to the City Hospital, for removal of warts under general anaesthesia, the vast majority of them were reviewed by Dr. Jefferson or Dr. Kelly before they were admitted to the hospital, and 97 patients were seen in such a manner. Of these 46 were not admitted and 51 were admitted. Of the 46 patients not admitted, 13 patients did not require treatment as the warts were dead or dying. The remaining 32 patients were discharged on formalin treatment. Of these 25 showed clearance of their warts in three months, five within six months and the remaining two within eight months. Fifty-one patients were admitted and of these 48 had their warts removed under general anaesthesia and three under local anaesthesia. Of these 45 were reviewed after six weeks and showed no recurrence of their warts.

Discussion

It is necessary to point out that this assessment of wart treatment was uncontrolled, and that it was not carried out on a double blind basis.

Many forms of treatment have been carried out over the years on plantar warts with as good results as this series and most dermatologists would agree that the results reflect the amount of work and perseverance of the clinicians involved. All that can be said from the first series is that the formalin treatment outlined appeared to give extremely good results. The fact that 100 per cent of these patients were cured would reflect the amount of work and perseverance of the clinicians involved in the proper application of treatment.

The question as to whether general anaesthesia is necessary for removal of plantar warts is answered in the second series. It would appear from these results that the risk of general anaesthesia is not worth taking in that equally good results can be obtained by conservative treatment.

Two other points emerge from this complete series:

1. Out of the 210 patients seen at the hospital, disregarding the first-time non-attenders, 112 were already having or had had formalin treatment and if this

had been adequately carried out, then they would not have required hospital attendance.

2. Out of the 210 patients, 111 considered that they may have received the wart infection at the baths. This is difficult to evaluate in that the question asked was biased.

Summary

One hundred per cent (83 patients) of 91 patients referred by their family doctors were cured by formalin treatment. Of the eight patients not so treated, six had operative removal of their warts and in two the warts were dead.

Of 97 cases referred by other hospitals for removal of their warts under general anaesthesia, 46.4 per cent (46 patients) did not require such treatment as the warts were clearing spontaneously in 13.4 per cent (13 patients) or cleared with formalin treatment in 33 per cent (32 patients). Of 51 patients who had operative removal of their warts, 45 were reviewed six weeks after operation and showed no recurrence.

Approximately 50 per cent of patients considered that they had received their infection at the baths.

This series makes it clear that the treatment of choice for plantar warts is formalin treatment. This treatment must be carefully and fully explained to the patients or their parents.

I would like to thank Dr. Jefferson and Dr. Kelly for their co-operation in this survey, the dermatologists, Dr. Hall, Dr. Beare, Dr. Burrows and Dr. Scott for referring patients to this Hospital, and Miss D. Boyd, Sisters Adams and Twaddell and the anaesthetic registrars and senior house officers for all their co-operation and help.

References

ANDERSON, I. and SHIRREFFS, E. (1963). *Brit. J. Derm.* **75**, 29.
BARR, A. and COLES, R. B. (1965). *Practitioner*, **194**, 378.
DUTHIE, D. A. and MCCALLUM, D. I. (1951). *Brit. med. J.*, **2**, 216.
RULISON, R. H. (1942). *Arch. Derm. Syph.* **46**, 66.
THOMSON, S. (1943). *Brit. J. Derm. Syph.*, **55**, 267.
VICKERS, C. F. H. (1961). *Brit. med. J.*, **2**, 743.

THIS PUBLICATION
is printed by

DORMAN & SONS LTD
Holmes Street, Belfast 2

ANNOUNCEMENT:

ANTIGEN LTD.

Manufacturers of a wide range of Pharmaceutical products in the form of—

Tablets.
Injections.
Topical Applications.
Galenical Preparations.

Also

Contract Suppliers to the Crown Agents, International Health Organisations and Governments throughout the world.

And

Distributors of Radiological Film, Photographic Film, Chemicals and equipment.

HAVE PLEASURE IN ANNOUNCING THAT THEY HAVE COMMENCED OPERATIONS IN NORTHERN IRELAND AND HAVE APPOINTED: —

M/s. Fred Storey Ltd.

44-50 Hill Street, Belfast

as their Agent in this area.

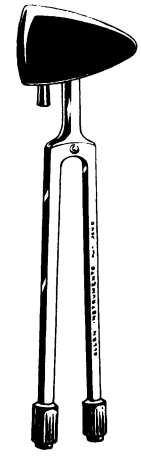
ANTIGEN LIMITED, ROSCREA, REPUBLIC OF IRELAND
Telephone: Roscrea 68 (3 lines). Telegrams: Antigen Roscrea. Telex: 6698

ALLEN
Diagnostic Instruments

THE ALLEN MULTI-PURPOSE NEUROLOGICAL INSTRUMENT

This specialised diagnostic aid combines five instruments generally required by most physicians.

1. A Tuning Fork, with 2 separate and distinct frequencies of approximately 130 and 260 cycles per second.
2. A Pinwheel, securely held by a ball-bearing catch, may be easily removed when required.
3. A Sensory Brush, which fits neatly into the underside of the assembly.
4. A Hammer, made of black rubber and attractively styled.
5. Removable Weights – when removed they cause a change in frequency of the tuning fork from 130 to 260 c.p.s.



SOLE N.I. DISTRIBUTORS FOR KEELER E.E.N.T. INSTRUMENTS

Clarkes OF DONEGALL SQUARE
BELFAST 1. TEL. 27257

THE ALLEN STETHOSCOPE:

Accurate diagnosis is the basis of effective therapy—and a comparative demonstration will quickly convince most physicians that Allen instruments out-perform all others for sensitivity, workmanship and efficient design.

The Chestpiece
* Exceptionally large diaphragm * Very simple switching from diaphragm to small bell on reverse side * Rubber ring provided for fitting to small bell as insulation against cold metal.

The Binaurals
* Two pairs of carefully designed ear pieces and individual adjustment ensure perfect fit for comfort and highest efficiency.

The Tubing
* Black "Tygon" plastic tubing gives better frequency conduction and lower hysteresis loss than conventional rubber.

RAPPAPORT & SPRAGUE 1951 Am. Heart J. 21: 605 – 609
SOLE N. IRELAND DISTRIBUTORS:

Clarkes OF DONEGALL SQUARE
BELFAST 1. TEL. 27257

Meet the protector

Austin 1800 de luxe £923.11.11 (incl. £173.11.11 p.t.)
power with protection
see it at

THOMPSON-REID *Limited*

Donegall Square Belfast 1
Telephone 30566

and at GLENGORMLEY 2896/3391 ;
BREDA SHOPPING CENTRE 649774 ;
Service at BALMORAL : 63a Stockman's Lane, 668372

EXOTIC DISEASE IN ULSTER

By D. E. BRADFORD, M.B., Ch.B., M.R.C.P.(Edin.), D.T.M. & H., Major R.A.M.C.,
and
M. A. R. ESLICK, M.B., Ch.B., Major R.A.M.C.
Military Wing, Musgrave Park Hospital, Belfast

WITH the increasing speed and convenience of modern travel many more people are being exposed to disease which were at one time considered to be only in the province of the tropical physician. Such disease, acquired outside the home base of the examining doctor, has been termed "Exotic disease" (Maegraith, 1963). Although certain individuals such as business men, civil servants, teachers, immigrant labour groups and service men are especially at risk, no class or creed is above suspicion. Shute (1965) has drawn attention to malaria occuring in school children after spending holidays with parents or relatives in the tropics.

The diagnosis of exotic disease is almost impossible without an initial awareness and asking the two important questions "Where have you been?" and "When were you there?". (Maegraith, (1965). In the services most doctors are trained to diploma standard in tropical medicine and are constantly aware of the possibility of unusual disease resulting from the continued movement of personnel round the world. That this awareness is not so acute in civilian practice becomes obvious from some of the case reports described later.

The Military Wing at Musgrave Park Hospital, Belfast, was opened in August 1963. From then to early 1966 we had seen 15 patients with truly exotic disease. Soldiers, if sick while on leave, are told to report to their nearest service medical unit. Some of these patients came directly to the Military Wing but many are seen initially by their own family practitioner.

Case Reports

Case 1. Brucellosis and Amoebiasis

A 21 year old rifleman whose home is in Belfast presented to the Military Wing with intermittent fever of 5 weeks duration following his return from the Sarawak jungle. There conditions were such that he had very intimate contact with the local pig population and following positive agglutination tests was treated as a case of infection with *Brucella suis*. While being treated for brucellosis he developed right sided pain with liver enlargement. *Entamoeba histolytica* were found in his stools and he responded rapidly to emetine and chloroquine.

Comment—This first patient put us on our guard against further cases of amoebiasis from S.E. Asia.

Case 2. Amoebiasis

This 36 year old corporal from Newtownabbey was first seen by his family doctor with a 8 months history of fever and loss of weight. Because of right basal lung signs and extreme wasting an initial diagnosis of neoplasm of the bronchus was suggested. At admission enquiry revealed that he had returned from Sarawak 7 months before and that soon after his return, with his unit, to England he was admitted to a military hospital with fever but subsequently negative findings.

He was found however on this second admission to hospital to have liver tenderness, a raised immobile right diaphragm and numerous *E. histolytica* in his stools. There was again dramatic recovery with emetine and chloroquine.

Comment—We feel that on the physical signs alone the family doctor made a reasonable provisional diagnosis, but that aropical disease was not considered, as was possible during his first hospital admission.

CASE 3. MALARIA *(Plasmodium vivax)*

A 37 year old officer stationed at Holywood had returned from British Guiana (now Guyana) 5 weeks before being seen by a local army-employed practitioner who diagnosed malaria. Infection with *P. vivax* was confirmed on admission to hospital.

Comment—The practitioner concerned had spent many years in military medical service and was acutely aware of the possibility of exotic disease.

CASE 4. AMOEBIASIS

A rifleman, aged 18 years, from Belfast came to the Military Wing with a story of recurrent diarrhoea starting in the Sarawak jungle and continuing for 1 month following his return. Physical examination was not remarkable but numerous *E. histolytica* were found in his stools.

Comment—The combination of Sarawak and amoebiasis was now firmly fixed in our minds and we were not surprised at the stool findings. Cases 1, 2 and 4 came from the same Ulster regiment which at the time was stationed at Tidworth in Hampshire. We wondered how many more cases were being seen elsewhere, but with subsequent contact checking of a case of typhoid (Case 5) also from the same unit no one else fell under suspicion. This absence of acute trouble however does not prevent any soldier who has served in Borneo, and there are many from Belfast, presenting to his family doctor in the future with chronic diarrhoea due to amoebiasis.

CASE 5. TYPHOID

A 20 year old rifleman, living in Belfast, complained to his family doctor of generalised aches and pains and a feeling of tiredness. A tentative diagnosis of depression was made but at his own request the patient was referred to the Military Wing. He had also recently been in Borneo but on the way home had spent a few days leave in Singapore.

He was found to have an intermittent fever but no overt signs of infection. The only initial investigation of note was a slightly abnormal Widal which was attributed to previous T.A.B.T. immunisation. A week later with the patient still undiagnosed investigations were repeated and a diagnosis made on a positive stool culture and a rising agglutination titre.

Comment—We were ourselves caught out on this occasion and as a consequence the Military Wing was put into quarantine for two weeks. Prophylactic T.A.B. vaccine although reducing the incidence of infection does not provide absolute immunity (Adams and Maegraith, 1960).

CASE 6. SCHISTOSOMIASIS

This soldier was aged 23 years, stationed in Northern Ireland, and had served in

Kenya up to 4 years before his admission. He presented, with haematuria, to his unit medical officer who made a correct provisional diagnosis.

Comment—This emphasises again the extreme importance of the geographical history.

CASE 7. MALARIA *(Plasmodium vivax)*

A 27 year old fusilier whose home is in Dublin, had returned from Kenya one month when he started to have rigors. While on holiday in Omagh he reported sick to the unit medical officer there who made a provisional diagnosis of lobar pneumonia. On admission blood film showed numerous trophozoites of *P. vivax.*

CASE 8. AMOEBIASIS

A 21 year old corporal stationed in Northern Ireland was referred from his unit medical officer for investigation of chronic diarrhoea of 3 years duration following service in Singapore. Examination of warm stool specimens showed vegetative forms of *E. histolytica.*

No provisional diagnosis was made in this case.

Comment—Cahill (1964) goes as far as suggesting that returning travellers from the tropics should report for stool examination, with a second examination after 3 months. It should be remembered however that diagnosis by stool examination is not easy and the difficulty is further increased if the stools are allowed to cool before inspection.

CASE 9. MALARIA *(Plasmodium vivax)*

A fusilier aged 23 years, from Belfast, presented to his unit medical centre and was seen by a local civilian practitioner. He made the diagnosis of malaria on the history of rigors and residence in Kenya 18 months before. The patient was treated with chloroquine and primaquine. This same soldier was readmitted 1 year later with the diagnosis of recurrent malaria but on this occasion his fever was found to be due to a streptococcal sore throat.

Comment—Perhaps better to be over aware than not aware at all.

CASE 10.—AMOEBIASIS

A sergeant of 39 years, stationed in Northern Ireland, was referred with right sided chest pain and fever. He was seen initially by his unit medical officer who did not offer a provisional diagnosis.

He had been in almost every station overseas and in 1949 had been treated for amoebic dysentery. On admission he had liver enlargement with a raised right diaphragm and although no amoebae were found in his stools, he was given emetine and chloroquine, with dramatic improvement.

Comment—Between 1938 and 1964 a total of 63 patients at the Radcliffe Infirmary Oxford were given a course of treatment for amoebiasis. Only 19 of these had *E. histolytica* found in stools or biopsy specimens (Wright, 1966).

CASE 11. CUTANEOUS LEISHMANIASIS

A 26 year old corporal resident in Belfast had returned from Aden 2 years previously. He was admitted from his unit medical officer with a diagnosis of chronic dermatitis.

Examination showed an ulcerative lesion about 10 cms. across on the right side of his neck. Biopsy of the edge of the lesion showed this to be Leishmaniasis.

Comment—There are many tropical diseases with skin manifestations of which Leishmaniasis and leprosy are the most important. The large increase in the number of registered cases of leprosy in Britain (Brown, 1965) should keep us acutely aware of this disease.

CASE 12. TROPICAL SPRUE

A rifleman 26 years old, resident in Belfast, came along to the Military Wing with a history of 1 year's intermittent diarrhoea starting while on service in Borneo. His stools contained no pathogens but were pale, bulky and offensive. His daily faecal fat excretion was 26 grams.

Comment—Tropical sprue has a regional rather than climatic distribution and although isolated cases occur round the Mediterranean and in Africa it is essentially a disease acquired in areas in S.E. Asia.

CASE 13. MALARIA *(Plasmodium vivax)*

An officer aged 46, stationed in Northern Ireland, had had previous service in Kenya and had been treated 2 years before for *P. vivax* malaria with chloroquine alone. He presented to his unit doctor, an army-employed local practitioner (not the same doctor as Case 3) who made a correct diagnosis. He was treated on this occasion with chloroquine followed by primaquine.

Comment—The diagnosis of relapsing malaria is often made initially by the patient and suggested to the doctor. *P. vivax* malaria is liable to occur on return from an endemic area even in persons who have been taking prophylactic antimalarial drugs, when these drugs are stopped.

CASE 14. AMOEBIASIS

A warrant officer of 37 years stationed in Northern Ireland presented rather more of a problem. He had been in Cyprus 10 years before, and from there visited other Middle Eastern countries and at this time had been treated for bacillary dysentery. When seen he had a history of recurrent diarrhoea but stool examination was consistently negative for cysts or parasites. Sigmoidoscopy failed to show any gross lesions but it provided a small amount of mucus in which cysts of *E. histolytica* was found.

Comment—Wright (1966) discusses in his paper the diagnostic problems of amoebiasis.

CASE 15. AMOEBIASIS

This patient aged 15 years was the son of an officer who had lived with his parents in Egypt 10 years previously. His complaint of chronic diarrhoea had been treated without any real success by his school medical officer. While on holiday from school his father brought him to the Military Wing where stool examination showed *E. histolytica.*

Comment—Certain doctors are more liable to see exotic disease than others and in this respect school medical officers are extremely important (Maegraith, 1963). Now with regular vacation charter flights thousands of school children visit parents and relatives in many highly endemic tropical areas.

Discussion

Fifteen patients in three years does not constitute an epidemic of exotic disease but they do serve to emphasise the fact that a strange disease is liable to turn up at any time in any doctor's practice. To quote Wright (1966) "Most clinicians working in a large hospital in this country are unlikely to see more than one or two cases of amoebiasis a year". We would like to feel the implication be "most clinicians . . . *are likely* to see one or two cases of amoebiasis a year".

A constant awareness of the possibility of exotic disease is essential and the penalty of not being alert may be an avoidable death or the quick spread of a disease in a non-immune population (Lancet, 1965).

Summary

Fifteen patients with tropical diseases, admitted to the Military Wing, Belfast, over 3 years, are outlined. Emphasis is placed on an initial awareness of exotic disease and of always taking a geographical history.

References

ADAMS, A. R. D. and MAEGRAITH, B. G. (1960). *Clinical Tropical Diseases.* 2nd edit., Oxford.
BROWN, S. G. (1965). *Lancet*, **2**, 582.
CAHILL, K. M. (1964). *Clinical Diseases in Temperate Climates*, London.
LANCET (1965). *Lancet*, **2**, 940.
MAEGRAITH, B. G. (1963). *Lancet*, **1**, 401.
MAEGRAITH, B. G. (1965). *Exotic Disease in Europe.* C.I.B.A., London.
SHUTE, P. G. (1965). *Lancet*, **2**, 1232.
WRIGHT, R. (1966). *Brit. med. J.*, **1**, 1957.

BOOK REVIEW

SYMPOSIUM – THYROID DISEASE AND CALCIUM METABOLISM. Publication No. 33. (Pp. 156; figs. 19. 25s). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS book contains the lectures and a report of a panel discussion given at the Royal College of Physicians of Edinburgh Symposium on Thyroid Disease and Calcium Metabolism in December, 1966. There are seven lectures in all; three on thyroid disease and four on calcium metabolism. All are given by recognised experts in their field and the subjects covered are up-to-date and have the stamp of authority.

The thyroid topics are covered by Professor E. M. McGirr who writes on "Genetics and the Thyroid", by Dr. W. J. Irvine on "Autoimmunity and the Thyroid" and by Professor G. M. Wilson on the "Treatment of Thyrotoxicosis". These are all excellent and provide a useful account of the newer work in each subject by men who have been in the forefront of research in thyroid disease. The field of calcium metabolism contains chapters on "Newer Diagnostic Procedures in Disorders of Calcium Metabolism" by Professor B. E. C. Nordin, "Thyrocalcitonin" by Mr. T. Duncan, "Calcium Absorption" by Dr. A. W. Dellipiani and "Medical Management of Certain Disorders of Calcium Metabolism" by Professor J. A. Strong. These are all good but if the reviewer selects Mr. Duncan's article for special mention it is simply because it gives an excellent and succinct account of the exciting new work in hormonal control of calcium homeostasis.

For any clinician who wishes to keep abreast of current thought on thyroid disease and calcium metabolism this book provides a most useful and up-to-date review. For the candidate for the M.R.C.P.(Ed.) in Endocrinology it is essential reading.

D.A.D.M.

Discussion

Fifteen patients in three years does not constitute an epidemic of exotic disease but they do serve to emphasise the fact that a strange disease is liable to turn up at any time in any doctor's practice. To quote Wright (1966) "Most clinicians working in a large hospital in this country are unlikely to see more than one or two cases of amoebiasis a year". We would like to feel the implication be "most clinicians . . . *are likely* to see one or two cases of amoebiasis a year".

A constant awareness of the possibility of exotic disease is essential and the penalty of not being alert may be an avoidable death or the quick spread of a disease in a non-immune population (Lancet, 1965).

Summary

Fifteen patients with tropical diseases, admitted to the Military Wing, Belfast, over 3 years, are outlined. Emphasis is placed on an initial awareness of exotic disease and of always taking a geographical history.

References

ADAMS, A. R. D. and MAEGRAITH, B. G. (1960). *Clinical Tropical Diseases.* 2nd edit., Oxford.
BROWN, S. G. (1965). *Lancet*, **2**, 582.
CAHILL, K. M. (1964). *Clinical Diseases in Temperate Climates*, London.
LANCET (1965). *Lancet*, **2**, 940.
MAEGRAITH, B. G. (1963). *Lancet*, **1**, 401.
MAEGRAITH, B. G. (1965). *Exotic Disease in Europe.* C.I.B.A., London.
SHUTE, P. G. (1965). *Lancet*, **2**, 1232.
WRIGHT, R. (1966). *Brit. med. J.*, **1**, 1957.

BOOK REVIEW

SYMPOSIUM – THYROID DISEASE AND CALCIUM METABOLISM. Publication No. 33. (Pp. 156; figs. 19. 25s). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS book contains the lectures and a report of a panel discussion given at the Royal College of Physicians of Edinburgh Symposium on Thyroid Disease and Calcium Metabolism in December, 1966. There are seven lectures in all; three on thyroid disease and four on calcium metabolism. All are given by recognised experts in their field and the subjects covered are up-to-date and have the stamp of authority.

The thyroid topics are covered by Professor E. M. McGirr who writes on "Genetics and the Thyroid", by Dr. W. J. Irvine on "Autoimmunity and the Thyroid" and by Professor G. M. Wilson on the "Treatment of Thyrotoxicosis". These are all excellent and provide a useful account of the newer work in each subject by men who have been in the forefront of research in thyroid disease. The field of calcium metabolism contains chapters on "Newer Diagnostic Procedures in Disorders of Calcium Metabolism" by Professor B. E. C. Nordin, "Thyrocalcitonin" by Mr. T. Duncan, "Calcium Absorption" by Dr. A. W. Dellipiani and "Medical Management of Certain Disorders of Calcium Metabolism" by Professor J. A. Strong. These are all good but if the reviewer selects Mr. Duncan's article for special mention it is simply because it gives an excellent and succinct account of the exciting new work in hormonal control of calcium homeostasis.

For any clinician who wishes to keep abreast of current thought on thyroid disease and calcium metabolism this book provides a most useful and up-to-date review. For the candidate for the M.R.C.P.(Ed.) in Endocrinology it is essential reading.

D.A.D.M.

SOME REACTIONS OF PATIENTS TO THEIR STAY IN HOSPITAL

By M. Y. DUDGEON, Diploma in Social Studies
Department of Social and Preventive Medicine, The Queen's University of Belfast
BRIGADIER T. W. DAVIDSON, M.B., B.Ch.
Formerly Group Medical Superintendent, Belfast Hospital Management Committee

SINCE 1962 all patients admitted to a large general hospital in Northern Ireland have been invited to write comments about their stay in hospital. For this purpose a blank letter card is enclosed in the hospital handbook which is distributed to all in-patients. Some hundreds of these cards have been returned and studied but although many of the comments were found to be useful, it was thought that a systematic survey carried out in the patients' homes by a trained social worker might give a more complete and reliable picture of the patients' reactions to their stay in hospital. It was also thought that such a study, by gathering information from patients about their opinions on the present structure and amenities of the hospital, might be useful to those concerned with future hospital planning. In recent years increasing attention has been paid to communications within the hospital as an aspect of the patients' well-being and the Ministry of Health has drawn attention to the need of research in this field in the report on "Communication between Doctors, Nurses and Patients" (1963). For this reason an attempt was made to obtain some information on this aspect also.

METHODS

The information was obtained by interviewing 148 patients at home, not longer than 10 days after discharge from hospital. A pilot survey of 20 patients was completed in which their reactions to their stay in hospital were discussed in a general manner and subsequently a questionnaire was devised to elicit information about the following main aspects of the patients' stay in hospital: physical conditions, methods of admission and discharge, and communications with the staff. It should be emphasised that all the data were obtained from replies to questions and therefore the results are subject to the usual limitations of opinion surveys.

DERIVATION OF SAMPLE

The sample of patients interviewed was obtained from all 3,701 patients who were discharged from the hospital during an eleven week period (see table 1). This included all types of surgical and medical illness usually admitted to a general hospital. Maternity cases were not included.

Certain omissions were made as follows: 344 patients under the age of 18 and the 400 patients transferred to other hospitals were excluded in order to confine the study to adult patients and to avoid any possible confusion with impressions gained at other hospitals. Patients staying in hospital less than seven days were also excluded as it was considered that they would not be able to assess conditions as efficiently as those admitted for a longer period. As only a comparatively small proportion of patients stay in this hospital for longer than 14 days it was decided

TABLE I—DERIVATION OF SAMPLE

	Male	*Female*	*Total*
Total number of patients discharged	1,678	2,023	3,701
Exclusions:			
1. Under 18 years of age	171	173	344
2. Discharged to other hospitals	221	179	400
3. Less than 7 days in hospital	426	702	1,128
4. 15-17 days in hospital	263	292	555
5. Thought to be in terminal stage	31	34	65
6. Neurological or neurosurgical	45	40	85
Total Exclusions	1,157	1,420	2,577
Patients available for study:			
1. 7-14 days admission	461	525	986
2. 28+ days admission	60	78	138
Total available for study	521	603	1,124

to study the patients who were discharged after an admission lasting 7-14 days but in order to get the opinions of the longer-stay patients all those in hospital for more than 27 days were also included.

In order to avoid any possible distress it was decided not to visit patients whose diagnosis suggested that a terminal stage of illness had been reached and because of possible communication difficulties, those patients treated in the neurosurgical and neurological wards were excluded. This left 1,124 patients in the selected sample and of these every eighth patient was selected to form the sample visited. This consisted of 150 patients (66 male and 84 female).

Comparisons of the sample interviewed with the sample not interviewed by sex, age and length of admission were made and the results showed that the two groups did not differ significantly in respect of any of these factors.

RESULTS

An attempt was made to complete the questionnaire for all those in the sample by personal interviews in the patient's home but it was not possible to visit two patients who were convalescing away from home at unknown addresses. In all, 148 patients (65 male and 83 female) were successfully visited and the following results relate to the interviews with these patients (table II).

TABLE II—RESULTS OF THE 1 IN 8 SAMPLE VISITED

	Male	*Female*	*Total*
1 : 8 sample	66	84	150
Visited successfully	65	83	148
Unsuccessful	1	1	2

Physical conditions in the hospital

Size of wards

Of the 148 patients interviewed, 24 patients were from small wards containing 2-10 beds and 124 were from the large wards consisting of 20 or more beds. Of the former, all patients were satisfied with the size of the ward except one who would have preferred a bigger ward with more companionship. Of the 124 patients in the large wards 80 (64%) were satisfied with their present size. Of the 44 patients who were dissatisfied with the large wards, although all wished for smaller units, only two patients desired single rooms and even this desire was qualified by their expressed preference for glass sided cubicles. Six patients who had experienced single rooms in past admissions all volunteered remarks to illustrate that they caused a depressing feeling of isolation.

Bathrooms and W.Cs.

There were no complaints about these from the 24 patients discharged from the new wards of the hospital but all 124 patients from the older wards thought the facilities inadequate. Apart from the lack of sufficient accommodation the chief complaint was lack of privacy in the bathrooms. The others are listed below:

Inconvenient position of W.C.
Lack of shaving mirrors
Inadequate flushing of W.Cs.
Use of bathrooms for other purposes
e.g. cloakrooms and laundry rooms
Lack of shelves, hooks and bathroom stools
Need for hand rail in W.C.
Lack of ventilation in W.C.
Low standard of cleanliness
Bathroom too small for wheeled chair
W.C. chain too high

Heating and ventilation

Nearly half of the patients had some complaint about the temperature of the wards. Fifty-six (38%) patients complained of being too hot, 13 too cold and four of severe variation in the temperature.

Noise

Most patients thought that some noise in a hospital was inevitable but only 18 patients made any specific complaint. In six of the wards there were no complaints at all and many of the patients expressed their gratitude for the peace and quietness that was achieved, but in contrast, patients in some other wards described the noise at night very graphically, take-in night particularly being singled out.

Particular noises complained of were: curtain runners, electric light switches, cisterns, rattling bedpans, banging swing doors and sound from the ward kitchen. One patient suggested that soft slippers should be issued to patients to prevent them clattering down the ward at night in heavy shoes. On the whole the thoughtfulness of the nursing staff was highly commended. One patient said "After lights out nurses crept about their duties with tremendous care and consideration so that no one should be disturbed". This praise was qualified however as she continued "but this was lost because of the noise male members of staff made in the corridors – clattering footsteps, loud whistling and noisy conversations".

Admission, discharge and transfer

Admissions

Many patients had less than 48 hours notice but as they had been warned at out-patient departments that they would have to be admitted, this was felt to be reasonable and there were few complaints. When it had been inconvenient most patients had 'phoned the sister of the ward and had been impressed by her instant co-operation.

Some women with young children would have liked longer notice and most mothers thought that afternoon or evening admission times would be a great deal more convenient than mornings.

Notice of discharge

Most patients, even if they have enjoyed their stay in hospital, are delighted to hear that they can go home and this may account for the few complaints about the discharge methods. In fact, the majority of patients only had a few hours notice of discharge but this only caused inconvenience or dismay for 11 patients.

The shortage of beds caused most of the distress as illustrated by the comments of two patients: "I only had a few hours' notice. My bed was wanted and I had to sit in a chair for four hours. I felt tired and miserable by the time my clothes arrived". "I only had an hour's notice and I had to wait four hours before my relatives came. Not only was my bed immediately occupied but three patients in pyjamas were hanging around the bathroom waiting to get into beds still in occupation".

Some felt that they were sent home before they were completely cured: "I felt I was shoved out, although I felt no better. I had been in bed for seven days without putting a foot to the floor and before I had a chance to regain strength, I was sent home".

Other patients felt confused by events. "I was greatly confused. I was told one day I would be in for another fortnight and the next that I could go home. Of course I was delighted in a way but I was also anxious because I wasn't altogether certain I hadn't been discharged by mistake". Another patient said: "My discharge was very unexpected because I understood I was to have another X-ray but I was sent home with practically no notice instead".

Many patients said that if their clothes had been available in hospital, discharge would have been easier.

Transfer to other wards

This occurred in 23 (15 per cent.) cases and was universally disliked. One patient explained the reason as she saw it. "You make the initial effort to get to know other patients in the first ward but to repeat this a second time is just too much – I just couldn't seem to conjure up the necessary energy to do it and as a result I felt miserably isolated".

Communications

The Reception of the Patient

It is to be expected that patients should feel apprehensive and nervous at the thought of coming into hospital and many described the feelings of panic which beset them. It is possible for these to be relieved, and in some wards this was almost completely successful. In others there were varying degres of success only

and about one-third of the patients took a considerable length of time to settle down and find their bearings.

Some patients stated that when they were received in the ward they had not been introduced to the patients in the neighbouring beds and that no one had taken the time to explain the geography of the ward.

Other patients expressed their feelings of uncertainty about what they should or should not do. A typical example was the patient who said that in addition to not knowing where the bathroom and wash hand basins were, no one explained the rules. She wasn't certain whether she was allowed out of bed and certainly did not realize that she could walk out of the ward.

Advice to patients on discharge

During a period in hospital most patients feel secure because they are confident that their condition is being observed constantly and that all treatments are being supervised. This continues up to the moment of discharge. It is little wonder therefore that 20 patients found the first few days away from the security of the hospital somewhat alarming. This anxiety can be increased if patients are worried by doubts as to the management of their case at home, as is illustrated by the following examples:

> "I had been taking tablets for months before I came into hospital and I got different ones all the time when I was in, so I didn't know whether I should go back to the old ones or not. My own doctor has not called and I don't feel strong enough to walk to his surgery."
>
> "I was told to take things easy, but what does that mean? I got new pills from my own doctor that were ordered from the hospital and they make me feel sick. When I went back to my doctor he couldn't help me because he hadn't got a full report yet."
>
> "They didn't give me any advice and as I was discharged so hurriedly I didn't get a letter to my own doctor. I don't feel at all well, I can't sleep and I know I should be feeling better by now."

Relief from anxieties

The five (3 per cent) patients who said they had an interview with the medical social workers were fully satisfied with the service and most grateful for the care they had received. Most of the patients understood to a certain degree the functions of the medical social worker but four stated that they felt the service was not sufficiently advertised.

Four mothers with young children (all waiting list patients) could have been helped by discussing their problems with a social worker before admission. One patient would have liked to discuss a personal problem but felt there was not sufficient privacy on the ward. Three patients had considerable anxiety about troubles at home which might have been relieved but they were not referred to the social work department.

Need for more information and reassurance about the patient's illness and about tests and treatment

Complaints about a lack of information and reassurance were made by 51 (34 per cent.) patients but 19 patients commented favourably about this aspect of their care and six patients said they preferred not to be told anything about their illness. The other 72 patients were either reasonably satisfied by the information provided or thought, owing to the simple nature of their illness, that no explanation or reassurance was necessary.

Each patient was asked the following three questions and the answers may serve to illustrate the points of view of patients on these subjects.

1. Did you get any explanation of the nature of your illness ?
2. Did you understand the reason for any tests or treatment you had ?
3. Did you feel reassured that you were making progress ?

Question 1—Did you get any explanation of the nature of your illness ?

(a) *Favourable answers*

"It was wonderful – the doctors are just as free as the nurses and both sisters were exceptionally approachable."

"Both doctors and nurses explain things to patients now. I remember when they wouldn't have told you a thing."

"Sister told me all about everything – I thought she was so kind because although the the doctor had talked to me I hadn't been able to understand all the medical terms."

(b) *Unfavourable answers*

"No, and it's no good asking any questions because you never get any satisfaction."

"They don't explain very much, I think they should tell people a little more – after all it is your own body and you are entitled to know. If you do ask questions you get your head bitten off."

"I didn't understand and the doctors are inclined to be gruff."

Question 2—Did you understand the reason for any tests or treatment you had ?

(a) *Favourable answers*

"Yes, everything is explained. You're not treated nowadays as though it's not your own body that's in hospital."

"Both nurses and doctors went out of their way to explain things."

(b) *Unfavourable answers*

"No, the doctors were very good and kind but if you asked a question they just did not answer. Consultants never speak to a patient, only to the sister. I was given various pills but I was never told what they were for or why I was getting them."

"No reasons were ever given for the X-rays. I thought I was going home and I was going round saying 'good-bye' when I was suddenly hustled off for another X-ray."

"No – all I know is that I have to take tablets for a month but what they are supposed to do – I haven't got a clue."

"When the head doctor came into the ward there was a deathly hush, everyone was terrified of him and no one dared to ask any questions."

"No, you're treated as though you've no intelligence. I asked questions but was always side-tracked. When students are always collecting round your bed you begin to wonder whether you're a person or just an object lesson. I think young doctors would need to learn more psychology so that they could speak to patients properly. As for tests, sometimes a wheeled chair just arrives and you're carted off like a load of old rubbish."

Question 3—Did you feel reassured about your progress ?

(a) *Favourable answers*

"Yes. You're treated as a person now, not like the old days at all."

"All my worries and anxieties seemed to disappear after the facts of my case were discussed with me so frankly and openly."

"My mind was made free because they explained things so well. What an improvement."

(b) *Unfavourable answers*

"No, and it's a great lack. Doctors are only interested in the body and the disease not in the man himself. I was wondering all the time what was going on, and you can't speak to a doctor. He never comes on his own and when he comes he stands at the bottom of the bed and you have to shout."

"No, it is a pity, if only they'd give as much care to the patient's mind as they do to their bodies it would make such a difference."

"I thought I was in for a hysterectomy and I expected to have it a few days after my

first operation. Nothing happened though, and I was discharged. I still don't know whether I am to have it in the future or not."

"The doctors always stood at the bottom of the bed and shouted and everyone else in the ward could hear all that was said. I heard him say to all the other patients that there was no need to worry as there was no sign of cancer. He never said this to me and although I had never imagained I had cancer before, I began to worry that perhaps I had got it."

"No one ever told me whether the X-ray of my arm was satisfactory or not."

Discussion

In this study 64 per cent of the patients in the large wards expressed no desire for smaller ones. This figure is slightly lower than that found by Cartright (1964). The reasons given by patients may not be completely objective as some may never have experienced smaller wards and others may have come to accept the large wards as a changeless and familiar symbol of hospital life. A higher proportion of patients treated in the smaller wards were fully satisfied with the size than those from the larger wards and it could be that large day rooms and small sleeping wards would be the means of pleasing the majority of patients. The high temperature of the wards caused discomfort to a good many patients as did the inconvenience of inadequate bathroom accommodation.

There were comparatively few complaints about noise but often the noise that irritated patients was caused by careless and thoughtless actions that could easily be rectified.

Difficulties caused by short notice of admission were few although more special consideration might have been given to mothers with young children. Sudden and unexpected discharge does cause some hardship and it is recommended that some changes should be considered.

One-sixth of the patients were transferred to another ward during their stay in hospital and this was often a cause of distress. This is largely due to the excessive daily demand for beds, until more accommodation is available the need for beds for emergency and seriously ill patients must be given priority and such transfers will continue.

Nearly one-third of the patients had difficulty in settling down to the hospital routine. Much of this may be due to the differing personalities of patients but there seems to be a need to stress the benefit that patients would receive by the universal adoption of the following admission procedure. As far as possible patients should be introduced to their neighbours, the geography of the ward, should be explained and an explanation of ward routine should be provided.

This procedure would be of value to many patients but for others still more is needed. Fear is not just confined to anxiety about behaviour, there is also the basic underlying fear of illness itself. This was expressed by one patient who said that there is a need to relieve the fear that practically all surgical patients suffer prior to their operations. This fear, which is the fear of death, is, he suggested, uppermost in the mind even before a simple operation. More reassurance from the registrar or consultant would help many patients facing an operation and the chaplains and experienced medical social workers could be used more often for this work.

The patients themselves often provide a considerable degree of support to each

other and this should be fostered and encouraged. Some sisters are in the habit of getting suitable convalescent patients to talk to newcomers and many of those interviewed expressed warm appreciation for the help they had thus received.

It can be argued that the patient's general practitioner is the person to reassure the patient when he returns home but there seems little doubt that some anxieties could be relieved by a few words from the doctor or sister on the ward prior to discharge. Often this was done and only comparatively few patients needed more help but where this had been neglected the patient was suffering considerable anxiety as a result.

Thirty-four per cent of the patients were not satisfied with the information and reassurance given in hospital. Although this is a lower proportion than that found in other studies of a similar nature (61 per cent reported by Cartright (1964), 40 per cent by Hugh-Jones (1964) and 65 per cent by McGhee (1961)) it suggests that some failure of communication between the hospital staff and the patient quite often existed.

In conclusion, it should be stressed that the great majority of the patients in spite of some adverse comments about certain aspects of their stay in hospital were most appreciative of the care and attention that they had received.

We wish to express our thanks to Professor J. Pemberton of the Department of Social and Preventive Medicine, Queen's University, Belfast, for his advice and encouragement during this study and to Miss L. McCune for clerical assistance. In addition we would like to thank Mr. J. S. McClelland, D.S.A., H.A.A., and Mrs. L. Lomas of the Hospital Records Office for their help and lastly we would like to thank all the patients who co-operated so willingly in the study.

A report of this study has been considered in detail by the Belfast Hospital Management Committee and the hospital administrative staff and as a result a good many of the causes for complaint have now been rectified.

References

CARTRIGHT, A. (1964). *Human Relations and Hospital Care.*

HUGH-JONES, et al. (1964). *Brit. med. J.*, **2**, 660.

McGHEE, A. (1961). *The patient's attitude to nursing care.* Edinburgh and London: E. & S. Livingstone.

MINISTRY OF HEALTH (1963). *Communication between Doctors, Nurses and Patients.* London: H.M.S.O.

RUPTURE OF THE SPLEEN IN INFECTIOUS MONONUCLEOSIS – REPORT OF A CASE

J. R. BECK, M.B., B.Ch., B.A.O. Belf.
Senior House Physician, Belfast City Hospital

G. BLUNDELL, M.B., B.S., D.Obst., R.C.O.G.
Senior House Officer, The Laboratories, Belfast City Hospital

S. MEBAN, M.B., B.Ch., B.A.O. Belf., F.R.C.S. Ed.
Senior Surgical Registrar, Belfast City Hospital

THE presentation and course of Drüsenfieber or glandular fever was described in 1889 by Pfeiffer whilst in 1909 Burns first observed the increase in the monouclear elements of the blood which is the usual accompaniment of this illness. Unaware of this work, Sprunt and Evans (1920) gave the name "infectious mononucleosis" to a febrile illness with glandular enlargement in which atypical mononuclear cells appeared in the peripheral blood. Tidy and Daniel (1923) realised that the two conditions were identical. Since the discovery by Paul and Bunnell (1932) of a heterophil agglutinin in the serum of patients with infectious mononucleosis and the introduction of Davidsohn's (1951) differential test, diagnosis has been facilitated.

The complications of infectious mononucleosis are many and varied and amongst the more hazardous is rupture of the spleen. It is possible that the cases of spontaneous splenic rupture observed by Frieselben (1922) and Attlee (1932) were concomitant with glandular fever but the first authentic illustration of the association was presented by King (1941). In a survey of the records of the Army Institute of Pathology undertaken by Smith and Custer (1946), it was revealed that glandular fever ranked second only to malaria as an underlying disease in cases classified under spontaneous rupture of the spleen : there had been a fatal outcome in 4 of the 7 cases cited. Beswick (1955) in a review of the literature, noted that in 20 autopsies carried out on patients suffering from glandular fever, death was in 9 instances due to rupture of the spleen : in 21 recorded examples splenectomy had been successful.

In view of the high mortality rate and rarity of rupture of the spleen in the course of infectious mononucleosis, a further example is recorded.

Case History

The case concerned a 23 year old dance band musician. For a week prior to admission to hospital, he had felt unwell having had low back pain and attacks of sweating. A sore throat and dysphagia developed and he was treated with oral penicillin. Although feeling faint, he decided to return to work in the evening of the 2nd September, 1966. Before starting work he became dizzy and nauseated and while attempting to return home, he collapsed and became semi-conscious. He complained of pain in the left side of his chest and upper abdomen. A provisional diagnosis of myocardial infarction was made and he was transferred to a hospital medical ward.

On examination in hospital the same evening, he was profoundly shocked but

conscious: the pulse rate was 120 per minute and the blood pressure was unrecordable. A few small cervical glands were palpable and the tonsils appeared inflamed. The abdomen was not obviously distended. There was slight guarding over the upper abdomen but no real tenderness or rebound tenderness.

An E.C.G. showed only non-specific T-wave changes. The haemoglobin level was 12.3 gm. per 100 ml.: the white cell count was 34,700 per cubic mm. with 64 per cent atypical monocytes and 32 per cent neutrophils: platelets were plentiful. The findings were suggestive of infectious mononucleosis. Internal haemorrhage was suspected and blood transfusion instituted. A peritoneal tap in the left hypochondrium produced blood and rupture of the spleen seemed likely.

At operation early on the 3rd September, the abdomen was explored through a left paramedian incision. The peritoneal cavity contained a large amount of clotted and fluid blood. The spleen was enlarged to approximately 2½ times normal size. The capsule was almost completely separated from the pulp and there was a 5 cm. long tear anteriorly. Blood loss was estimated to be 5 litres. A splenectomy was performed.

A screening test for glandular fever (Hoft and Bauer 1965), on a sample of blood taken prior to transfusion, was positive. A serum heterophil agglutination titre of 1 in 224 after guinea pig kidney adsorption was obtained, the sample having been taken after the transfusion of 6 pints of blood.

Histologically, the splenic pulp was highly cellular and contained numerous large atypical lymphocytes and mononuclear cells. The trabeculae, adventitia of some arteries and the sub-intimal zones of veins were infiltrated by large cells. The picture was consistent with a diagnosis of infectious mononucleosis.

The patient made a good recovery and was discharged from hospital 13 days after operation.

Discussion

Clinical findings and post-mortem reports illustrate the widespread lesions which may be found in infectious mononucleosis. Distension of the spleen and infiltration of the trabeculae and capsule by lymphocytes and the atypical mononuclear cells account for the relative ease with which rupture may occur. In most recorded instances, the complication has supervened towards or after the end of the second week of the disease by which time the splenic changes have developed (Erwin *et al* 1959). A history of trauma may or may not be elicited (Timmes and Averill 1948) and rupture of the spleen has occurred with the patient at rest in bed (Melville 1955). Palpation of the spleen has been implicated (Smith and Custer 1946) and symptoms have followed contraction of abdominal musculature and defecation (Freeman 1962). This has been explained on the basis of congestion consequent upon the increase in portal pressure which occurs. There may be recurrent episodes of haemorrhage with temporary sealing of the capsular tear by thrombus. In the case recorded above the splenic changes had fully developed although symptoms were only of approximately one week's duration. No history of severe injury was obtained and it is likely that bleeding from the spleen commenced several hours before the patient collapsed.

Needle aspiration was of value in this case in confirming the diagnosis of intra-peritoneal bleeding, especially in view of the possibility of myocardial infarction.

SUMMARY

A 23 year old male presented in a profoundly collapsed condition. Haematological findings were suggestive of infectious mononucleosis and a diagnostic peritoneal tap produced blood. Rupture of the spleen was suspected and confirmed at operation.

We wish to express our thanks to Dr. J. C. Davison and Mr. W. A. Hanna for permission to publish details of this case and to Dr. C. C. Kennedy for his help in the preparation of the paper.

The histological examination of the spleen was by Dr. F. Alexander.

REFERENCES

ATTLEE, W. (1932). *Lancet*, **1**, 291.
BESWICK, I. P. (1955). *J. Path. Bact.*, **70**, 407.
BURNS, J. E. (1909). *Arch. intern. Med.*, **4**, 118.
DAVIDSOHN, I., STERN, K. and CHIZO KASHIWAGI (1951). *Amer. J. clin. Path.*, **21**, 1101.
ERWIN, W., WEBER, R. N., MANNING, R. T. (1959). *Amer. J. med. Sci.*, **238**, 699.
FREEMAN, A. A. M. (1962). *Brit. med. J.*, **2**, 96.
FRIESELBEN, M. (1922). *Dtsch. Z. Chir.*, **173**, 45.
HOFT, G. and BAUER, S. (1965). *J. Amer. med. Ass.*, **194**, 351.
KING, R. B. (1941). *New Engl. J. Med.*, **224**, 1058.
MELVILLE, H. J. (1955). *Med. J. Aust.*, **1**, 356.
PAUL, J. R. and BUNNELL, W. W. (1932). *Amer. J. med. Sci.*, **183**, 90.
PFEIFFER, E. (1889). *Jahrb. Kinderhk*, **29**, 257.
SMITH, E. B. and CUSTER, R. P. (1946). *Blood*, **1**, 317.
SPRUNT, T. P. and EVANS, F. A. (1920). *Johns Hopk. Hosp. Bull.*, 410.
TIDY, H. L. and DANIEL, E. C. (1923). *Lancet*, **2**, 9.
TIMMES, J. J., AVERILL, J. H. and METCALFE, J. (1948). *New Engl. J. Med.*, **173**, 239.

BOOK REVIEW

PRACTICAL ANAESTHESIA FOR LUNG SURGERY. By Ruth Mansfield and Richard Jenkins. (Pp. 202; figs. 47. 50s). London: Baillière, Tindall & Cassell, 1967).

THIS book is aimed at the registrar anaesthetist learning about the special problems of lung surgery, a field which has diminished so much that it is difficult to obtain experience of all aspects, outside the largest of chest hospitals. It is written by anaesthetists, a physiologist and two physiotherapists from the Brompton Hospital and emphasises the techniques used in this centre.

The section on physiology by Francis J. Prime covers clearly the essentials of compliance, ventilation/perfusion ratios and gas transport but inevitably omits large aspects of pulmonary physiology of which the anaesthetist needs to know, such as the role of surface tension in alveolar collapse and the pulmonary aspects of cardiac disease.

The pharmacology of a wide range of agents is discussed and here one feels that too many drugs are mentioned and treated rather inadequately. The main justification of the book is for the chapter on "Control of Secretions" where posture, blockers and endobronchial tubes are described in detail. The chapters on Anaesthetic Technique for different operations also contain much information not readily available elsewhere.

The supporting chapters are only of value as brief introductions and for this reason more references would have been welcome. However, it is a book covering a limited field in detail and is therefore valuable reading for any candidate for the F.F.A. examination. The illustrations are clear and the production is exceptionally good.

R.S.J.C.

SUMMARY

A 23 year old male presented in a profoundly collapsed condition. Haematological findings were suggestive of infectious mononucleosis and a diagnostic peritoneal tap produced blood. Rupture of the spleen was suspected and confirmed at operation.

We wish to express our thanks to Dr. J. C. Davison and Mr. W. A. Hanna for permission to publish details of this case and to Dr. C. C. Kennedy for his help in the preparation of the paper.

The histological examination of the spleen was by Dr. F. Alexander.

REFERENCES

ATTLEE, W. (1932). *Lancet*, **1**, 291.
BESWICK, I. P. (1955). *J. Path. Bact.*, **70**, 407.
BURNS, J. E. (1909). *Arch. intern. Med.*, **4**, 118.
DAVIDSOHN, I., STERN, K. and CHIZO KASHIWAGI (1951). *Amer. J. clin. Path.*, **21**, 1101.
ERWIN, W., WEBER, R. N., MANNING, R. T. (1959). *Amer. J. med. Sci.*, **238**, 699.
FREEMAN, A. A. M. (1962). *Brit. med. J.*, **2**, 96.
FRIESELBEN, M. (1922). *Dtsch. Z. Chir.*, **173**, 45.
HOFT, G. and BAUER, S. (1965). *J. Amer. med. Ass.*, **194**, 351.
KING, R. B. (1941). *New Engl. J. Med.*, **224**, 1058.
MELVILLE, H. J. (1955). *Med. J. Aust.*, **1**, 356.
PAUL, J. R. and BUNNELL, W. W. (1932). *Amer. J. med. Sci.*, **183**, 90.
PFEIFFER, E. (1889). *Jahrb. Kinderhk*, **29**, 257.
SMITH, E. B. and CUSTER, R. P. (1946). *Blood*, **1**, 317.
SPRUNT, T. P. and EVANS, F. A. (1920). *Johns Hopk. Hosp. Bull.*, 410.
TIDY, H. L. and DANIEL, E. C. (1923). *Lancet*, **2**, 9.
TIMMES, J. J., AVERILL, J. H. and METCALFE, J. (1948). *New Engl. J. Med.*, **173**, 239.

BOOK REVIEW

PRACTICAL ANAESTHESIA FOR LUNG SURGERY. By Ruth Mansfield and Richard Jenkins. (Pp. 202; figs. 47. 50s). London: Baillière, Tindall & Cassell, 1967).

THIS book is aimed at the registrar anaesthetist learning about the special problems of lung surgery, a field which has diminished so much that it is difficult to obtain experience of all aspects, outside the largest of chest hospitals. It is written by anaesthetists, a physiologist and two physiotherapists from the Brompton Hospital and emphasises the techniques used in this centre.

The section on physiology by Francis J. Prime covers clearly the essentials of compliance, ventilation/perfusion ratios and gas transport but inevitably omits large aspects of pulmonary physiology of which the anaesthetist needs to know, such as the role of surface tension in alveolar collapse and the pulmonary aspects of cardiac disease.

The pharmacology of a wide range of agents is discussed and here one feels that too many drugs are mentioned and treated rather inadequately. The main justification of the book is for the chapter on "Control of Secretions" where posture, blockers and endobronchial tubes are described in detail. The chapters on Anaesthetic Technique for different operations also contain much information not readily available elsewhere.

The supporting chapters are only of value as brief introductions and for this reason more references would have been welcome. However, it is a book covering a limited field in detail and is therefore valuable reading for any candidate for the F.F.A. examination. The illustrations are clear and the production is exceptionally good.

R.S.J.C.

COMMUNITY CARE OF INFIRMITY *

By

G. F. ADAMS, M.D., F.R.C.P.

Wakehurst House, Belfast City Hospital

IT IS an honour to be invited to join the company of distinguished speakers who have given this address in previous years. Of those who have referred to the care of the aged I can remember Dr. Marjory Warren, Lord Amulree, and especially our own great physician Sir William Thomson. He anticipated the days of guest speakers, and was invited to move the adoption of your annual report 18 years ago. I have always regretted that there is no record of the polished piece of oratory he entertained us with that afternoon, but at one stage he quoted the remark that "the 'chronic' problem has become acute". It is no less so today, and it must seem to many of you, as it does to me, that in spite of the knowledge and experience of great social reforms, and in spite of greater prosperity, we are no better placed now than we were then to cope with the pressing demands of mental and physical infirmity.

This problem is most evident in our old people, though it is not exclusively theirs; it involves handicapped children, young and middle-aged people with multiple sclerosis, the victims of accidents, and the wreckage left in the wake of medical progress—the half-successes of new advances. But it seems to be more pressing or more clamorous amongst the aged than in these others, and present company will only need a brief reminder of the reasons for this.

Contrary to popular belief progress has added little to the lives of old people, but it has greatly lengthened the lives of the young. Social reforms, through better education, housing, nutrition, hygiene, and working conditions, have matched advances in medicine (immunisation, asepsis, chemotherapy, and antibiotics) to suppress many of the killing diseases of infancy and childhood, and since 1900 to add 25 years to the average life span. Unfortunately old age increases susceptibility to various degenerative diseases such as those affecting the heart and blood vessels, the nervous system, and the bones, muscles and joints. Modern medicine may make some of these disorders more tolerable, but can seldom effect dramatic cures comparable to those obtained in infectious disease by antibiotics, or in a surgical emergency by operation. The elderly victims of degenerative diseases may survive in a state of slow physical or mental decline for many years, and their disabilities are often aggravated by want—not only financial, although this is common enough, but by want of good housing and proper care.

Disease, disability and domestic difficulty, therefore, are prime movers creating problems in an ageing population, and society today has to contend with infirmity in old age on a scale unknown to former generations.

Resolute efforts have been made to anticipate and to provide for this growing need; efforts to eliminate poverty by pensions and supplementary grants; to extend the domiciliary service provided by home nursing, home help, pre-cooked meals, and laundry; to augment this service by voluntary visiting, "extra care", and free

*Guest speaker's address: Northern Ireland Council of Social Service Annual Meeting, June 1967.

hand-outs of such essentials as clothing, bedding, special aids and other gear; to encourage the building and reconstruction of residential hostels; to foster imaginative voluntary schemes such as the Abbeyfield Society; and, above all, to evolve the British pattern of geriatric medicine and nursing. This is a phase of hospital treatment which gives older patients opportunities and facilities they were once denied which enable them to take advantage of the slow recovery after illness that time alone may bring. It has integrated medical social work into geriatric services, promoted research, and has led the world in setting international standards of medical and nursing care of the aged.

Why is it that, having reached a peak of progress in this geriatric care, initiated thirty-five years ago by Dr. Marjory Warren, there appears to have been a setback recently, bringing a decline in responsibility, both *individually* in standards of personal service and *collectively* in community services?

If anyone views the present scene with complacency and doubts that there are such shortcomings, they might ask themselves why "old age" is always coupled with the word "problem"; why it is that although resources for the domestic or hostel care of old people are more generous, and standards of geriatric medical and nursing care are higher than ever before, demand always appears to exceed the supply of domiciliary service, and the gap widens instead of narrowing; why there are long waiting lists for admission to residential homes, hospital geriatric units or psychiatric wards; why old people and those they depend on complain so much about deficiencies; and, rather surprisingly, why the remark "we all know that provision for the care of the elderly is inadequate" can pass without comment amongst well-informed people in hospital circles.

The causes of dissatisfaction are probably to be found in changing attitudes and in changing patterns of need.

Attitudes

"Care" of sickness or infirmity at best always devolves on women. It has become difficult to recruit them on the scale needed to cope with an ageing population because emancipation has led to a disappearance of old retainers and has created an image of domestic help which lacks dignity; because full employment encourages business to rival the professions in attracting young women; and because many married women work to improve their standard of living, to provide better education for their families, to get away from the sink, or just to keep up with the Joneses.

Even those who are attracted to the professions find less idealism, and more specialism and restrictive practices than there once were. Much committee time given obstensibly to consideration of what a professional member's work is, may really go to defining what it is not. This could be interpreted as "what can I evade having to do?" instead of "what should I do?"—a subtle difference, which may disperse willingness and introduce demarkation disputes to destroy the overlap of responsibilities so necessary to community service.

It is not surprising that criticism of the domiciliary services and pressure for admission to institutions are constantly stepped up. We are assured often enough that our health service is the best in the world, and the relatives of an elderly invalid in poor circumstances may press for his admission to hospital from a genuine sense of responsibility, not from a desire to disown it. The hospital may

appear to offer standards of care the home cannot provide. Fortunately, however, many more people are willing to shoulder responsibility for their elderly dependents at home than wish to evade it. We would do well to protect their interests, because their need of support is even greater now than it was when Dr. J. H. Sheldon (1950) observed that the burden of old age will remain a domestic one and it can never be dealt with by a purely caretaker policy of providing sufficient homes and institutions. It would be far beyond the resources of the National economy to replace the contribution made by relatives and friends to the care of the aged in this way.

Patterns of Need

It is a paradox that we owe much of our present difficulty to the progress made in modern geriatric medical care. Twenty years ago geriatric rehabilitation was restricted to a narrow, selective, field of long-term illness. It has since been extended by improved diagnosis, more effective treatment and better facilities, and elderly invalids who would have been considered incapable of any effective response to treatment even by the standards of a progressive geriatric department ten or fifteen years ago, are now being encouraged to regain activity which is often very limited. This may appear to be most satisfactory to the patient, and often it is; it may also help to ensure that only those patients who really need nursing are left in hospital beds. But it has repercussions:

(a) Improved social services and willingness of relatives enable many of these patients to leave hospital. As a result the community in general, and residential homes in particular, feel the weight of an increasing burden of care of greatly disabled old people. (These include many more psychiatric invalids because the mental hospitals too have accepted with enthusiasm a more progressive approach to treatment. This has encouraged the idea that the community should find alternative homes for many patients, including older people, who formerly would have been consigned for life to mental institutions).

(b) The institutional resources available to those who eventually require them are compromised by the surviving long-stay patients who never leave hospital —the products of enlightened terminal care. The more successful geriatric rehabilitation is, therefore, the more aged, more mentally infirm and more physically disabled is the hard-core of long-stay patients left in hospital. One measure of this is the fact that ten years ago the overall rate of incontinence and mental incapacity in our geriatric department was 55 per cent. It is now 67 per cent and still rising.

(c) In certain circumstances the combined best efforts of the geriatric department and the patient fall short of even shaky independence and social reliability, and at home even with the best of present-day domiciliary services there may not be the 24-hour cover necessary for security. Yet the patient may be rational and most anxious to get home. The problem is best illustrated by some case histories:

A married woman aged 66 had a stroke involving her right side and depriving her of speech. After 12 weeks in hospital she still had difficulty in communication although comprehension appeared to be normal, she behaved naturally, was not incontinent, and could dress with help. There was little recovery of voluntary movement in the affected arm and leg, and her balance when standing was poor so that she could only walk with

support. Her only desire was to get home. Her husband, also disabled by a stroke, was living with his son and daughter-in-law who had a child aged 2 and an infant a few months old. These two invalids could not possibly maintain their own home again, and this household was their only alternative.

A widower, aged 74, with no family, lived alone in a large house in town, visited regularly by a niece and her husband from 10 miles away. Though not mentally ill he was eccentric, cantankerous, and obstinate, unwilling to accept help from anyone else (least of all to pay for it), and would not allow any woman other than his niece into the house. (This was a promise he had given his wife before she died). Nor would he consider any alternative to his own home. He became anaemic, malnourished and debilitated, took to falling about, and eventually broke his arm. He was obliged reluctantly to accept hospital care for some weeks, but insisted on resuming his Rake's progress at home as soon as he could move about again with confidence.

There must be many patients such as these in all hospitals, especially in the geriatric wards. They do not need nursing in the true sense, much less hospital care; they are unacceptable in residential hostels or unwilling to go to them; and community services seem to be inadequate to ensure their safety even by day at home.

The problem of the hospital is to arrange the patient's discharge home, not only because the bed is needed for someone else, but because this is what most patients want. The problem of society should be how to keep the patient at home, not, as so often it seems, how to get him back in. There are times when one feels much in sympathy with the question asked in a British Medical Journal leader last year, "Does the Community Care?". It does, of course, in being concerned about the well-being of its senior citizens; it cares too in the other sense that 96 per cent of them are looked after in private dwellings and provides the institutional resources for most of the other 4 per cent. But it is in this sense that there are shortcomings, and these are most apparent in relation to those elderly invalids who are too fit for hospital but too socially unreliable for home, and those who need indefinite long-stay nursing in hospital.

The limits to our present domiciliary services are probably more apparent to their friends and relations than to the patients themselves. When discharged to homes where they may be alone for much of the day and almost wholly dependent on one person, perhaps an over-tired young mother, the limited activity restored by months of endeavour in hospital may be quickly lost. The patient becomes disheartened, and even the effort to get dressed and sit out in a chair soon becomes too much. Apathy, and carelessness in hygiene follow, the disused limbs become contracted, personal relationships disintegrate and the household becomes demoralized. It is not surprising that when such patients are readmitted to hospital for one reason or another, it is often impossible to arrange their return home, yet all the components of the comprehensive system of "care" necessary for them probably exist in present statutory and voluntary services. The trouble is that some are difficult to select, arrange and coordinate, whilst others are withheld in watertight compartments.

To say this is not to belittle the achievement of the statutory health and welfare services and the support they have had from voluntary bodies in providing geriatric domestic care. What has happened is that they are increasingly called upon to take on problems of sickness and infirmity they were not designed or financed to solve. The system of institutional care does not solve them either—residential

homes because they are not staffed to deal with them, and hospitals because, as Sir Geoffrey Vickers (1967) has said, they are primarily designed now for cure, not care, and the principle that a hospital should admit for "social" as opposed to "medical" reasons is accepted unwillingly, and unwillingness is likely to grow.

Yet we cannot afford to have most of the special knowledge, the skill and the experience of many disciplines essential to the care of infirmity, bottled up in hospitals which cannot or will not admit all those who need access to them.

The alternative is to release this expertise by some means other than admission to hospital. This can be done by the development of day-hospital activities and by closer links between hospital and general practice to extend, through domiciliary services, professional advice and practical help from the hospital to the patient at home. This might apply, for example, to nursing, to physiotherapy, to services for investigation, or to psychiatric or medical advice. It might fill certain gaps and create a multi-disciplinary, and truly community service, with the day-hospital or day-centre as its focal point. Above all, it might encourage more consideration of what Professor Douglas Hubble (1966) called "the uniqueness of each individual." "A steadily larger number of persons find themselves at odds with their group or with society and require, at one and the same time, their 'sense of belonging' to be restored and their individuality to be acknowledged." This is true of many old people who end their days after months or years in geriatric or psychiatric long-stay wards. Society turns willingly to institutional care, instead of home care, for these patients, but is less willing to pay for proper standards. Parsimony and rejection of responsibility for chronic incapacity led to the system of large concentrates of mentally or physically disabled patients in long-stay wards. It is difficult to prevent the running of these large groups from becoming impersonal. Loss of individuality is too easily justified on the grounds of group necessity. It is unreasonable to encourage the policies that lead to this, and then to become righteously indignant about the conditions they produce.

More beds are needed—in hospital to share long-stay care more equitably, in hostels to provide more cover for infirm old people who are homeless or unreliable living alone. More than either of these we need a service to bridge the gap between hospital and home, and to integrate medical care with social aid to support families looking after old people at home. With this support we need willingness, and that hope for the future described in a valedictory address by Miss Elizabeth Maxwell as "the acceptance of responsibility for others in a world where poverty and need cannot be wiped out by pious words or mere gifts of money." Old people in our community rely very much on this hope, and your Council may rest assured that it will not run short of the challenges arising from their need.

References

HUBBLE, D. (1966). *Brit. med. J.*, **1**, 474.
SHELDON, J. H. (1950). *Brit. med. J.*, **1**, 319.
VICKERS, SIR GEOFFREY (1967). *Lancet*, **1**, 944.

THE POPULATION OF RATHLIN ISLAND

By J. H. ELWOOD, M.B., M.R.C.S., D.P.H., D.I.H.

Department of Social and Preventive Medicine, The Queen's University of Belfast

INTRODUCTION

THIS paper consists of an epidemiological and demographic study of the population of the island of Rathlin, off the coast of County Antrim and lying between Ulster and Scotland. Its history is briefly traced from earliest times and its population analysed from the record of the Census of Ireland over the past 120 years.

HISTORY

Rathlin is mentioned by Pliny as "an island between Ireland and Britain". It is known that in neolithic times, porcellanite was mined in the townland of what is now called Ballygill for the production of stone axes and tools which were used in many parts of Western Britain (Whelan, 1933). In the post-Christian era, the first church on Rathlin was founded by St. Comgall of Bangor in 580 A.D. The island was then part of the kingdom of Dalriada which extended from the mainland of Antrim to the Scottish Isles and Kintyre (Boyd, 1947).

In the tenth century Viking invasions began and these Scandinavians became absorbed in the local population which produced at a later date the clan, Macdonnell of the Isles. Their seat was at Islay and they controlled the island until 1476. (Hill, 1873).

John de Courcy, who came to Ulster in 1177 made friends with the local chieftains of Dalriada who in turn regarded him as their overlord. His possessions were lost to Hugh de Lacy in 1205 who later obtained the title of Earl of Ulster from King John of England. (The Earldom of Ulster eventually passed to Henry VIII and has been held by the Royal Ramily since then, the present holder being H.R.H. the Duke of Gloucester). Rathlin was then granted by de Lacy to John Bisset in 1242 and it remained with this family until the dispute of King Bruce of Scotland with England. The owner of the island at that time, 1306, Hugh Bisset lost the tenure because of his part in aiding King Bruce and it was granted by Edward II to Sir John of Athy. It was later returned to the Bissets, one of whom Margery Bisset, married John Macdonnell, a grandson of Robert II, King of Scotland, about 1400. The Macdonnells, who later became the Earls of Antrim, therefore possessed the Glens and also the island of Rathlin through this marriage.

Much fighting and bloody battles occurred in this period of Ulster's history between the Scots-Irish alliances and the Anglo-Normans who were beginning to settle in the rest of the country. As a reprisal against an attack on a Norman stronghold, all the cottages were burnt and every inhabitant that could be found was killed in a Norman invasion of the island in 1274. During this retreat of the Lord of the Isles to Antrim, Rathlin was settled by Scottish immigrants. They also entered the Glens on the mainland (Hill, 1873) and many different clans and names were introduced into this area at that time. Battles continued to rage, and in 1575 the Earl of Essex massacred all the inhabitants he could find during an expedition against the Scottish Macdonnells (Froud, 1858).

When James I came to the throne of England, Sir Randal McSorley Macdonnell, the first Earl of Antrim, was granted Rathlin island by patent (Dobbs, 1662). In 1637 he leased the island to help to pay his debts. During this time of the English civil war, the Cromwellians declared Rathlin to be forfeited because of the Royalist support of the Antrim family in the wars of 1641. The Earl of Argyll was appointed governor and in 1642 he was sent with an army of Campbells to quell the rebellion in Ireland at this time. He swept Rathlin bare of every living thing, hurling the inhabitants over a cliff (Macauley, 1858). This terrible massacre was just as severe as that occurring in Glencoe in 1689. The local inhabitants were Roman Catholics and their objections to the settlement of their land by Presbyterians from Scotland was probably regarded as a holy enough reason for their complete annihilation. Tradition relates that one woman and her baby boy were saved. She was taken by a Campbell to Scotland as his wife. When she returned to Rathlin many years later she found her son ploughing the family farm (Hill, 1873).

In 1657 the population numbered only 75 but by 1721 was 490 (Gage, 1851). During this period, the turmoil in Scotland and the fall of Bonnie Prince Charlie brought more clans to Antrim. The Blacks and McCurdys, the commonest names on Rathlin today, were said to have arrived then. The Earl of Antrim had little interest in the island except the collection of rent from his tenants which was paid in kind with animals or grain.

In 1746, the island was leased to Rev. J. Cage of Aghadowey and it remained in the possession of this family until the passing of the Northern Ireland Land Purchase Act in 1925. Unlike previous owners, the Gages were resident on the island and increased the efficiency of agriculture, improved the harbour and introduced highland cattle and horses from Scotland.

Population Growth

By 1784, the population was recorded as being 1200 (Hamilton, 1784). This remarkable growth in size over sixty years was due to the influence of the aforementioned landlord who brought about land reforms, laid down new boundaries and used the soil to its capacity. Even Hamilton at that date remarked that he thought that the island was rather overpopulated. The first reliable statistics on the population are available from the Census of Ireland Returns. The first was done between 1813 and 1815 but was unsuccessful (Frogatt, 1965). The next was in 1821 and there was then one every tenth year up to 1911. Owing to the partition of Ireland the censuses in Eire and Northern Ireland got out of step. Those of Eire were done in 1926, 1936, 1946 and 1951. Those of Northern Ireland were done in 1926, 1937 and 1951. A census of both countries was done in 1961 and it is hoped that they will take place in comparable years in the future. The change in the population of Rathlin, based on the census returns from 1841–1961 is shown in Table I.

It is seen that in 1841, the total population was 1,010, an astoundingly high figure which anyone who has visited the island will immediately realise. Furthermore, this size had probably been maintained for over fifty years and was due to be the intensive cultivation of the land, the abundant supply of fish and potatoes, and the efforts of an active landlord. This was the picture in many other places in Ireland which had a total population in 1841 of 8,175,000. This explosion of

TABLE I

Estimates of Population of Rathlin Island, Co. Antrim

Date	*Number*
1657	75
1721	490
1784	1,200
1813	1,148
Census	*Figures*
1841	1,010
1851	753
1861	453
1871	413
1881	361
1891	365
1901	368
1911	351
1926	299
1937	245
1951	196
1961	159
1966	159
1966	118

humanity has of course been one of the most amazing and critical facts in the history of this country (Connell, 1950). An estimate of the population in 1732 was around 3,000,000 just over one-third of its immediate pre-famine level. This trebling in size occurred on these off-shore islands just as on the mainland. Arranmore, in Donegal, supported over 10,000 persons in 1841, the number today being about 1,200 (census 1961). Whether the country was over populated seems a rather academic question. Over one thousand people crowding on to Rathlin's flat windswept mass is almost an insult to nature. As we shall see, this concentration of humanity had disastrous results.

POPULATION DECLINE

Over a short period of ten years from 1841 to 1851, the population fell from 1,010 to 753, and from 1841–1861 a reduction of more than half occurred. What is the explanation for this gross change? Any answer must lie with a study of the events occurring during this period and in particular the Great Famine of 1845.

At this time, the wife of the landlord of Rathlin, Mr. R. Gage, who was an accurate observer of events, wrote a history of the island in 1851. From this certain passages are relevant:

page 183 "The potato famine set in and the number of emigrants the following spring (1847) amounted to 107, leaving the population considerably diminished, smaller than there is any record of its

ever having been in modern times. In the beginning of 1847, the distress of the people was very great, their entire crop of potatoes rotted in the ground, and they had no visible means of support, . . . "

The potato blight thus afflicted Rathlin just as it did the mainland. Another passage by Mrs. Gage states:

page 183 "Applications were made to different individuals and charitable societies in Great Britain and Ireland, Guernsey, India and America, who were most liberal in their donations both of food and money, especially the Society of Friends, so that during this trying season, not one perished for want, nor was it found necessary to apply to the Government Loan Fund for assistance."

Although none actually died from starvation, we see that the famine grossly shattered the stability of the island community and the inhabitants began to leave, over 10 per cent of the entire population emigrating the following spring. More followed every year so that this flood did not halt until 1881, almost a generation later.

A further tragedy hit Rathlin at this time as well as the failure of the potato harvest. Mrs. Gage writes:

page 187 "It is rather remarkable that for some years past, and particularly since the famine set in, the fish have to a great extent deserted the coast."

Fish, the other cheap abundant supply of food, also failed. No wonder that emigration was so marked.

Population Structure

It would perhaps be thought that after the tragic events of the late nineteenth century, the population of Rathlin would have stabilised and resumed some sort of equilibrium with its environment. We see, however, from Table 1, that decline continued and has now reached a figure of 118 individuals (census (1966) – some 10 per cent of its total in 1841. Some of the reasons for these more recent changes will be discussed using the age and sex structure of the community in 1901 and 1961 (Fig. 1).

Table II

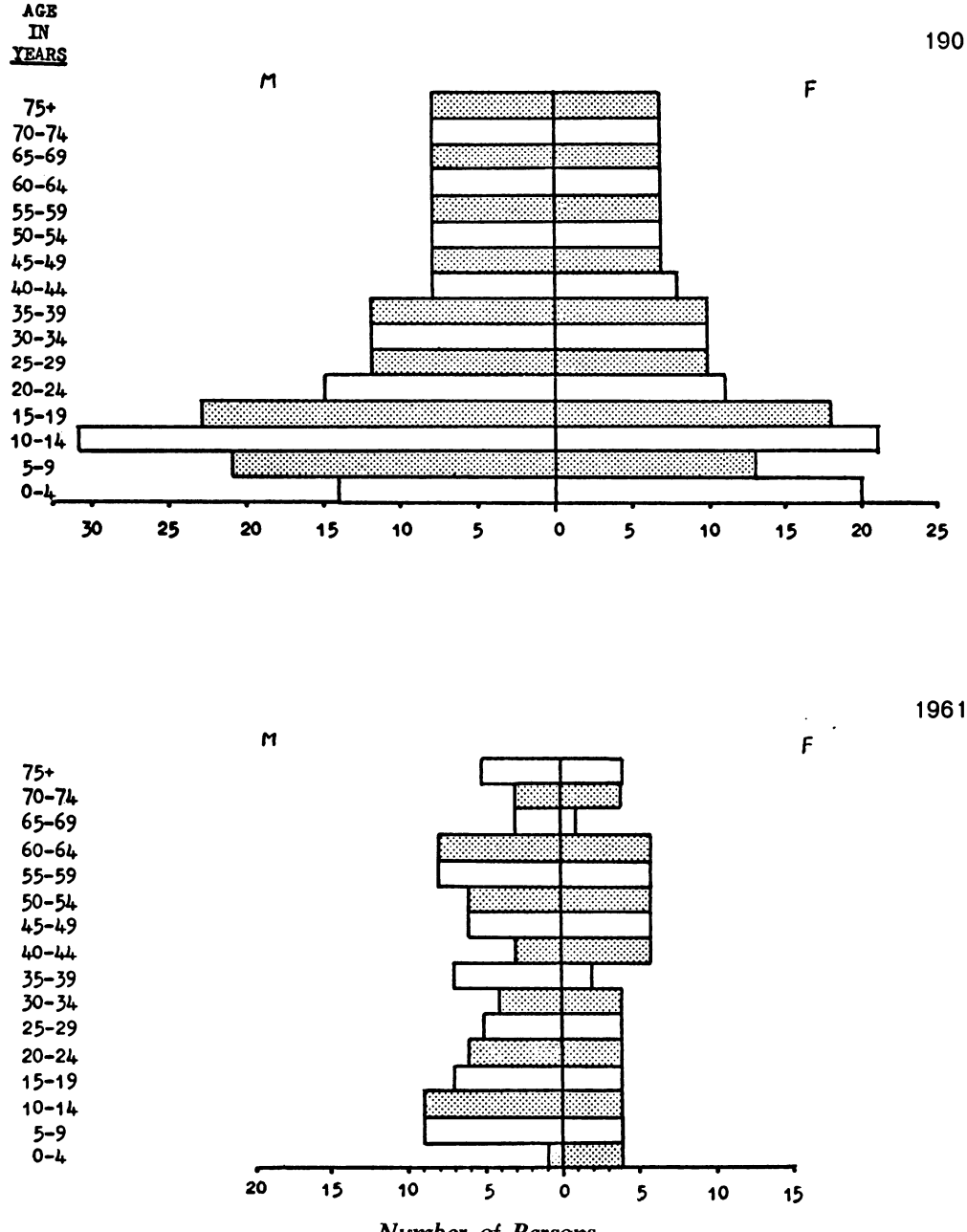
Change in Age Structure of the Population of Rathlin Island 1901 *and* 1961

Age in years	*Date*	
	1901	1961
19 or less	163	42
20–24	107	45
45+	98	72
TOTAL	368	159

$0.001 > P.$ significant.

$\chi^2 = 21.12$ D.F.=2.

Estimated age and sex structure of the population of Rathlin Island, County Antrim, Ireland, at the Census of 1901, *and at the Census of* 1961



Number of Persons

NOTE: M=male, F=female

A gross change has occurred in the age and sex structure of the population since the beginning of this century. In 1901, almost half was under 20 years of age, and approximately one-fifth over age 45 years. By 1961, this pyramid structure had been reversed and half the population is now over 45 years of age and one quarter under 20 years of age, a significant change (Table 2).

TABLE III

Male : Female Ratios, all ages of the population, Rathlin Island 1841–1966

Date	*M/F Ratio*	*Date*	*M/F Ratio*
1841	0.97	1901	1.16
1851	1.01	1911	1.07
1861	1.02	1926	1.18
1871	0.89	1937	1.20
1881	0.97	1951	1.13
1891	1.01	1961	1.30
		1966	1.62

TABLE IV

Male : Female Ratios at different age groups of the population, Rathlin Island 1901 *and* 1961

0–4	0.70	0.25
5–9	1.61	2.25
10–14	1.57	2.25
15–19	1.27	1.75
20–24	1.36	1.50
25–29	1.20	1.25
30–34	1.20	1.00
35–39	1.20	3.50
40–44	0.87	0.50
45–49	1.00	1.00
50–54	1.00	1.00
55–59	1.00	1.33
60–64	1.00	1.33
65–69	1.00	3.00
70–74	1.00	0.75
75+	1.00	1.25
TOTAL	1.64	1.25

This change has not occurred in both sexes equally. From the sex ratios (Tables 3 and 4, and Fig. 1) we see that there has been a greater decline in females than in males at all age groups. This is most marked in those of working age so that we now have a community consisting mainly of old people and children at school with a diminishing able-bodied group.

Here we see in micrososm and to an exaggerated degree the growing problem of geriatrics which is becoming an urgent issue in mainland urban communities. This picture is usually produced by a diminuition in mortality, particularly infant mortality, an increase in the expectation of life from modern medicine, and the increasing toll of the diseases of middle age. On Rathlin, however, these biological factors are less important than the social phenomenon of extensive emigration. This was initiated by the famine of 1845 and has become a conditioned response of the Irish native in the face of adversity. The harshness of life on an offshore island, particularly for the women, has been increasingly rejected for the lure of the factory and a box-like urban existence. These are now the goals of the present generation.

This trend is increasing as can be seen from the sex ratio analysis from 1841 to 1966 (Table 3), a community of almost equal numbers of both sexes now has almost three men for every two women.

For the future, undoubtedly the population will decline further if conditions do not change. Whether this community and other similar ones should be left to work out their own salvation in Malthusian terms or whether direct action should be taken to try and prevent their extinction is a complicated one and is beyond the scope of this present investigation.

Summary

A study of the changes in the size and structure of the population of Rathlin Island, County Antrim, has been carried out. Its history, with particular reference to its people, has been traced up to the present day. It was found that the island was grossly over-populated from 1784 until 1845. The potato famine affected the island and the fishing also fell off at the same period of time. This set off a train of emigration which halved the population size in the twenty years from 1841–1861 and has continued into this century. Recent emigration has changed the community structure to one with a predominance of old people. It is postulated that if this continues the community will become extinct in the near future.

Acknowledgements

I would like to thank the Registrar-General of Northern Ireland and the Superintendent Registrar of Ballycastle for their help in obtaining data for this study, Mr. G. Kilpatrick for the diagrams, and Miss L. McCune for typing the manuscript.

References

Boyd, H. A. (1947). *A history of Rathlin Island.* J. S. Scarlett & Son, Ballycastle, N. Ireland, 24.

Connell, K. H. (1950). *The population of Ireland* 1750-1845. Oxford Univ. Press, 35.

Dobbs, R. quoted from Hill (1873), 377.

Froggatt, P. (1965). *Irish Hist. Studies,* **14**, 227.

Froude, J. A. (1858). *History of England.* London, 112.

Gage, Mrs. R. (1851). *A history of Rathlin Island.* Manuscript photocopy, Q.U.B. Library, 120.

Hamilton, W. (1784). *Letters concerning the Northern Coast of the County of Antrim.* Simms & McIntyre, Belfast, 1882 edition, 14.

Hill, G. (1873). *The Macdonnells of Antrim.* Archer & Sons, Belfast.

Whelan, C. B. (1933). *Proc. Belf. Nat. Hist. & Phil. Soc.* 1933-34, 107.

CARCINOMA OF THE CERVIX

By BRIAN D. BURROWS, M.B., D.M.R.T., and GERARD A. LYNCH, M.B., D.M.R.T., F.F.R.
Northern Ireland Radiotherapy Centre, Purdysburn, Belfast

IN Northern Ireland each year there are probably about 75 new cases of invasive carcinoma of the cervix uteri and of this number about 90 per cent are referred with a view to treatment by radiotherapy, alone, or occasionally in combination with surgery. One presumes that the remaining patients not referred are either very early when surgery is carried out, or very late and advanced where the gynaecologist feels that radiation has little or nothing to offer. With the introduction of cervical cytology it may be that the number of new cases occurring annually will decrease, and this is probably an appropriate time to review the treatment of patients referred from 1953, when the Centre opened, to 1960, when cobalt units were installed, and treatment policy and techniques were altered or modified.

TABLE I
1953–1960 *Total Number of Cases* 520

	1953	1954	1955	1956	1957	1958	1959	1960	Total
Stage 1	4	13	10	14	18	10	5	8	82
Stage 2	20	23	29	22	36	37	34	33	234
Stage 3	23	8	12	16	8	4	12	9	92
Stage 4	7	11	11	4	10	11	8	4	66
Stump	1	2	2	1	2	–	–	–	8
P/O Rec. etc.	7	7	4	–	2	5	6	7	38
Total	62	64	68	57	76	67	65	61	520

Table I illustrates the number of cases referred to the Centre from 1953–1960. The numbers do not vary very greatly from year to year and it can be seen that 474 patients out of a total of 520 were referred with a view to radiation as the definitive treatment. Of the remaining 46 patients, 8 were true or coincident carcinoma of the cervical stump and one imagines that this condition is indeed an historical curio which is fast disappearing. The other 38 patients referred fall into two main groups: (1) Those where local recurrence or metastases appeared months or years after hysterectomy, and (2) Cases referred immediately following surgery which was considered incomplete or where the gynaecologist and/or pathologist indicated that recurrence was probable. The so called prophylactic irradiation following Wertheim's hysterectomy is probably a useless procedure with little or no influence on the ultimate prognosis.

GEOGRAPHICAL DISTRIBUTION

The Centre is the only one in Northern Ireland and patients are referred not only from gynaecologists in Belfast but from all over the Province, either directly or through the Department of Obstetrics and Gynaecology at the Royal Victoria Hospital (Table II).

TABLE II

Geographical Distribution—1953–1960 520 *Cases*

	Belfast	*Antrim*	*Down*	*L'derry*	*Armagh*	*Tyrone*	*F'managh*	*Others*
No. of cases	244	77	60	61	24	36	12	6
Percentage	47.5	15.0	11.6	11.9	4.7	7.0	2.3	—
Population (thousands)	416	274	267	165	117	134	51	—
Percentage of total population	29.2	19.2	18.7	11.6	8.2	9.4	3.1	—

It is a little difficult to say what conclusions, if any, can be drawn from the figures given in Table II. Why the proportion of patients referred from the Belfast area should be so high is not easy to understand, but perhaps it may be explained by the proximity of the treatment centre and the relative accessability of a radiotherapeutic opinion. On the other hand the number of patients referred from some of the counties is very small, even when accumulated over an eight year period, and this to some extent must be influenced by the training, experience and surgical skill of the locally based gynaecologist. It is generally accepted that it is a condition predominately found in parous women, but it is interesting to note too, that multiplicity of marriages, separations, divorces, early maturation, early coitus, early pregnancies, as well as extramarital relations and non use of contraceptives have all been statistically incriminated. One hesitates to suggest that the explanation may be found in this almost wholly depressing litany of human sorrow and frailty!

AGE INCIDENCE

The ages of patients referred were recorded and are illustrated in Table III.

TABLE III

Age Incidence

Age	0–19	20–29	30–39	40–49	50–59	60–69	70–79	80–89	90+
Total	—	3	56	147	146	111	47	10	—
Per cent	—	.6	10.8	28.3	28.1	21.4	9.0	1.9	—

It is a rare condition under the age of thirty, but the incidence has been reported to increase with age up to the middle sixties and then decrease at a faster rate than the decrease in population of aged women. Here in Northern Ireland, there appears to be no great variation in the incidence from forty to seventy years of age, from which age it decreases rapidly.

CLINICAL STAGING

The staging employed at the centre during the period under review was based on the International Classification of the stages of carcinoma of the uterine cervix as accepted by the International Congress in Obstetrics and Gynaecologists in 1950 and is as follows (Table IV) :

TABLE IV

Clinical Staging of Carcinoma Cervix Uteri
International Classification

Stage 0	—	Carcinoma in Situ – Pre-Invasive Carcinoma, Intra-Epithelial Carcinoma.
Stage 1	—	Carcinoma strictly confined to the cervix.
Stage 2	—	Carcinoma extends beyond the cervix but not to the pelvic wall. Carcinoma involves the vagina but not the lower third.
Stage 3	—	Carcinoma has reached the pelvic wall. Carcinoma involves the lower third vagina.
Stage 4	—	Carcinoma has involved rectum or bladder, or both, or has extended beyond limits described.

One accepts that in some reports there has been further sub-division of the stages. Stage Two may be divided into (a) in which the disease is confined to the upper two-thirds of the vagina with minimal involvement of the parametrium and (b) in which the disease almost extends to the pelvic wall or there is a barrel shaped uterus on recto-pelvic examination. Stage Three may be divided into (a) where only one pelvic wall is involved and (b) where both pelvic walls are involved or one wall and the lower third of vagina. Stage Four cases may be divided into those patients where the stage is determined by local extension or those in which distant metastases are present. However, only the simple clinical classification (Table IV) was used in the eight year period under consideration and in that time 474 new cases were referred for radiotherapy.

TABLE V

Stage Classification Comparisons
1953–1960 *Total Number of Cases* 474

	Number	*Percentage*	*N. Ireland Centres A Percentage*	*Centres B Percentage*	*Centres C Percentage*
Stage 1	82	17.3	24	11	16
Stage 2	234	49.4	38	42	36
Stage 3	92	19.4	31	35	35
Stage 4	66	13.9	7	12	12

The table (Table V) shows the number of patients and the percentage of total in each stage. In addition figures from three other reports are included for comparison—(a) reporting on 49,000 cases from 105 Institutes; (b) reporting on 3,500 cases from 6 British Centres, and (c) International Figures on 64,000 cases. The importance of staging in comparing both results and treatment methods will be referred to later.

Histology

There are two histological types of carcinoma of the cervix – squamous cell carcinoma and adenocarcinoma. The latter is rare and in this series only 10 such reports were found in the 520 cases reviewed, i.e. 1.9 per cent. In 34 per cent of our cases, the tumour was reported as anaplastic, but it probably would be correct to say that histological grading generally does not appear to provide a basis for prognosis but, within a given stage, may be relevant.

Treatment

It is now fairly universally accepted that radiotherapy is the treatment of choice in practically all cases of carcinoma of the cervix. Radium first appears to have been used in treatment as far back as 1903. Successful results were reported in Sweden in 1912, and by 1919 radiation treatment had so developed that most leading gynaecologists, particularly in Scandinavia, had abandoned surgical treatment in favour of radiotherapy.

Today radium is still the mainstay of radiation treatment in carcinoma of the cervix. It must be accepted that any attempt to treat the cervical cancer plus regional lymph nodes, although a relatively simple technical procedure with modern equipment (Mellor 1960) would increase the treatment volume to such an extent that lethal dose levels could not possibly be achieved. For this reason x-ray treatment, either deep x-ray or supervoltage, is normally planned to direct beams of limited cross section to the lateral parametrium whilst protecting the central zone which receives adequate irradiation from the radium. The two best known treatment methods are the 'Stockholm Technique' and the 'Paris Technique' Here in Belfast we use a slightly modified Manchester technique which itself is essentially based on the Paris method (Paterson and Cole, 1963). Radium is inserted into both the uterus and vaginal vault. The uterine radium, amounting to between 20 and 35 mgm. is enclosed in a thin rubber tube whilst the vaginal radium is placed in rubber ovoids. The ovoids contain 15 mg. to 25 mg. of radium depending on the size used, and the whole aim of the dosage system is to load both the ovoids and intra-uterine tubes so that regardless of size or length employed a constant dose rate is delivered at Point A. Point A is defined as being 2 cms. lateral to the central canal of the uterus, and 2 cms. up from the mucous membrane of the lateral fornix in the axis of the uterus. The treatment is usually given in two applications of radium and when not supplemented by external radiation the dose at Point A should be in the region of 7,500r. This means in effect, two treatments of approximately 60 hours. The main modifications to this treatment are as follows:

1. If the patient is over 65 years of age the dose at Point A is reduced to 6,500r.
2. If the tumour extends down the vaginal wall the ovoids instead of being inserted side by side in the vault at the level of the external os are placed along the length of the vaginal canal.
3. If the patient is to receive supplementary external x-ray treatment the dose at Point A is reduced to 6,500r.

The course of supplementary x-ray treatment is normally given between the two radium insertions. As the central area receives adequate irradiation from the radium it is shielded, and two 10 cm. x 4 cm. x-ray fields are placed anteriorly and posteriorly and directed at the lateral parametria. In this series treatment was

by Deep X-ray Therapy (300KV., 3.8 mm. CuHVL.) and the central dose, given in 15 treatments over 3 weeks, was during the period under review normally betwen 1,500r and 2,000r depending on the size of the patient. In advanced cases the initial treatment may be by x-ray therapy rather than by radium. Large x-ray fields are placed anteriorly and posteriorly to irradiate the whole of the true pelvis and a central dose of 3,500r is given in 15 treatments over a period of 3 weeks. At the end of this treatment the patient is taken to the theatre for examination, and, if there has been satisfactory response and resolution of the tumour, a single radium treatment is initiated to give a further dose of 3,500r at Point A.

Complications Following Treatment

Mild rectal reactions can be expected in a fair proportion of patients treated radically by radiotherapy, but these reactions should normally settle within a few weeks of completion of treatment. Severe complications do occur in a small percentage of cases, particularly rectal ulceration. This may result from slipped applicators or paracervical high dose, and may proceed to fistula formation necessitating permanent colostomy. The percentage of patients developing such complications varies greatly from report to report – from 1.5 to 5.5 per cent. In the 410 cases treated radically by radiotherapy at this Centre, 15 (3.6 per cent) were noted to have suffered persistent bladder or bowel symptoms, but only in 6 (1.4 per cent) did fistulae develop. It is generally accepted that the fistula rate following radiotherapy is very much less than the rate following the complete Wertheim's operation, whilst the combination of irradiation and radical surgery can be attended by severe complications in about 20 per cent of cases. Severe damage to the bladder is rare but fibrosis at the lower end of a ureter, following radiation therapy is reported.

Results of Treatment

Cancer of the cervix when treated adequately almost certainly has the best prognosis of all major forms of cancer. Clearly the earlier the condition is diagnosed

TABLE VI

Comparison of Treatment Methods

Stage 1—Total Number of Cases 82

	Number	*5 Year Result*	*Percentage Survival*	*Severe Bowel or Urinary Symptoms*
Radium only	68	38	55.9	2
Radium and lateral parametrial irradiation	3	3	100	—
Radium and large field irradiation	—	—	—	—
Radium and Wertheim's hysterectomy	11	7	63.6	1

No cases were treated by radium and lymphadenctomy or by palliative X-ray or radium.

the greater the chance of cure, but even the treatment of advanced cases can be very rewarding. In 450 cases radiotherapy was the sole treatment method employed, and as it is generally accepted that the extent of the disease is the biggest single factor in determining survival, the four stages provide an excellent basis for prognosis.

Stage One

Table VI indicates the results of treatment in 82 cases assessed as Stage One. In 71 patients radiotherapy was the sole method employed and there were 41 survivors at 5 years, i.e., 57.7 per cent.

This figure is disappointing when compared with some other reports and will be referred to later. Numbers, of course, are small and almost certainly some selection has taken place in that the more favourable cases in this stage could very well have been treated by surgery – either alone, or combined with pre-operative radium.

Stage Two

There were 234 patients in this group, forming about fifty per cent of the total number of cases referred. With more advanced neoplasms a great variety of treatment methods was employed and this is illustrated in Table VII.

TABLE VII

Comparison of Treatment Methods

Stage 2—Total Number of Cases 234

	Number	*5 Year Result*	*Percentage Survival*	*Severe Bowel or Urinary Symptoms*
Radium only	142	66	46.5	5
Radium and lateral parametrial irradiation	59	28	47.4	4
Radium and large field irradiation	11	4	36.3	—
Radium and Wertheim's hysterectomy	19	13	68.4	3
Radium and lymphadenectomy	2	2	100	—

One case received palliative X-ray therapy.

Forty-six per cent of the patients treated by radiotherapy survived five years and this figure certainly can be regarded as reasonably satisfactory. Attention is drawn to the two main treatment techniques employed – radium alone and radium combined with lateral parametrial irradiation. The percentage survival with both techniques is almost identical and whilst, not in the nature of a clinical trial, it is interesting to note the similarity here to a report from Manchester where the addition of parametrial irradiation in Stages 1 and 2 was found to make no appreciable difference to the results (Patterson and Russell, 1963).

In a small number of Stage 1 and Stage 2 patients, treatment was by combination of surgery and radiotherapy. The results are illustrated in Table VIII.

TABLE VIII

Results of Treatment by Surgery and Radiotherapy
1953–1960 *Total Number of Cases* 32
(Stages 1 *and* 2 *only)*

Method	*Number*	*5 Year Survivors*	*Per cent Survivors*
Radium and hysterectomy	30	20	66.6
Radium and lymphadenectomy	2	2	—
Total	32	22	68.7

In thirty of the patients radium treatment, with a ten per cent reduction in the dose of radiation preceeded Wertheim's hysterectomy. The five year survival figure compares more than favourably with the 48.9 per cent achieved in the combined Stage I and Stage 2 cases treated solely by radiotherapy but it must be emphasised that numbers are small and some selection did obviously take place. Four patients out of the thirty-two treated by the combined method developed severe bowel or urinary symptoms and this, too, is in line with other reports where anything up to 20 per cent of patients have suffered complications.

Stage Three

There were 92 patients in this group and 23 five year survivors, i.e., 25 per cent. Table IX illustrates the treatment techniques employed:

TABLE IX

Comparison of Treatment Methods
Stage 3*—Total Number of Cases* 92

	Number	*5 Year Result*	*Percentage Survival*	*Severe Bowel or Urinary Symptoms*
Radium only	37	7	18.9	1
Radium and lateral parametrial irradiation	34	12	35.3	—
Radium and large field irradiation	18	4	22.2	1
Radium and Wertheim's hysterectomy	—	—	—	—

Two cases with no 5 *year survivals received palliative X-ray therapy.*

Considering the advanced nature of many of these tumours, treatment can often be very rewarding and certainly should always be offered to patients in reasonable general condition.

Stage Four

In these cases external radiation therapy probably has the major role to play in treatment whether the intention is curative or palliative. There were 8 survivors out of the whole group of 66 patients referred (Table X).

TABLE X
Comparison of Treatment Methods
Stage 4—Total Number of Cases 66

	Number	*5 Year Result*	*Percentage Survival*	*Severe Bowel or Urinary Symptoms*
Radium only	19	4	21	1
Radium and lateral parametrial irradiation	8	2	25	1
Radium and large field irradiation	11	1	9	—
Radium and Wertheim's hysterectomy	—	—	—	—
Radium and lymphadenectomy	—	—	—	—
Palliative X-ray therapy	10	1	10	—
Palliative radium therapy	11	—	—	—
Nil	7	—	—	—

Radical treatment it can be seen was attempted in 38 patients and there were 7 five year survivors, i.e. 18.4 per cent. Treatment too, must necessarily be individualised to a very great extent and results must depend on the numbers staged solely on local extension as distinct from distant metastases.

DISCUSSION

Whilst this short paper is largely a report on cases of carcinoma of the cervix referred to the Radiotherapy Centre for treatment, and the techniques employed, reference must be made to the results achieved in the treatment of similar groups elsewhere. We have therefore compared our figures with those from G. H. Fletcher in Houston (1962), the Radiumhemmet in Stockholm (1958) and the S.E. Region of England (Bristol) (1966). The population of this region is about double that of Northern Ireland, but the distribution on an urban and rural basis is not dissimilar. Comparisons are illustrated in Table XI which sets out the percentage of cases in each stage and the percentage of five year survivors.

TABLE XI
Comparison of Results

	Northern Ireland		*Houston*		*Stockholm*		*Bristol*	
	No. Cases	*5 Year Surv. per cent*	*No. Cases*	*5 Year Surv. per cent*	*No. Cases*	*5 Year Surv. per cent*	*No. Cases*	*5 Year Surv. per cent*
Stage 1	71 (16%)	57	117 (18%)	93	326 (26%)	75	375 (27%)	55
Stage 2	213 (48%)	46	220 (34%)	78	429 (34%)	55	441 (30%)	36
Stage 3	92 (21%)	25	278 (42%)	46	372 (30%)	35	477 (34%)	20
Stage 4	66 (15%)	12	37 (6%)	14	117 (10%)	19	132 (9%)	7
All	442	38.5	625	63	1244	51	1425	33
Stump	8	50	51	63	—	—	—	—

The figures are certainly interesting for we see that whilst results achieved here in Northern Ireland are, for all practical purposes, identical with those from Bristol, they compare unfavourably with Stockholm and particularly Houston. Both Belfast and Bristol could be regarded as fairly representative of the British scene and indeed, Lederman 1964) made the observation that there was no single radiotherapy centre in Great Britain where the results were in any way outstanding as distinct from North America and Scandinavia. However, in comparing results Collins (1965) suggests that three questions at least should be asked :

1. Are the five year survival differences significant statistically ?

There can be no doubt that this is the case when our results are compared with both the figures from Stockholm and Houston.

2. Are the groups comparable?

This is obviously a much more difficult question to answer, surprisingly so in view of the existence of the International Classification even accepting the modifications in staging. However, attention must be drawn to the difficulty in distinguishing precancerous and early cancer in carcinoma of the cervix and the inclusion of a proportion of borderline cases would immediately improve the results. An extension of this policy in the inclusion of a number of borderline Stage 0 cases in Stage 1; borderline Stage 1 cases in Stage 2; borderline Stage 2 cases in Stage 3; and borderline Stage 3 cases in Stage 4 would improve not alone the composition, but the prognosis for all cases. If a considerable number of Stage 4 cases are then considered to be unsuitable and excluded then this too would automatically lead to a marked improvement in the overall 5 year survival figures. The figures given in Table XI would certainly appear to confirm the very great difficulty in comparing what should be almost identical groups. The results therefore, in many instances must depend considerably on the question as to whether or not selection has taken place and this, very often, is virtually impossible to determine.

3. What are the conditions that account for a signficant difference in reported results?

The results from Houston are really so outstandingly good that the treatment policy there should be briefly described.

Stages 1 and 2A are treated by two radium insertions (8,000–12,000 mgm. hours) and lateral irradiation, 3,000–4,000r in 3–4 weeks.

Stage 2B – 4,000r in 4 weeks to whole pelvis followed by 5,500–6,500 mgm. hours of radiation in two insertions.

Stage 3 – 6,000r to total pelvis in 6 weeks followed by 4,000 – 5,000 mgm. hours in one radium insertion.

Stages 3B and Stage 4 – 7,000r to pelvis in 7 weeks followed in suitable cases by 2,000–3,000 mgm. hours in a single radium insertion. The external radiation treatment was delivered on a 22 Mev Betatron unit. It is probably fair to point out that in spite of the degree of individualisation and the obvious great care taken in the technique employed the severe complication rate does appear high. However, the report from Houston is not peculiar in this respect, for since the general introduction of supervoltage therapy the incidence of severe complications has undoubtedly risen. One is only too aware of the morbidity and frightful distress occasioned by overtreatment, and to justify the risks involved there quite

clearly must be more than a marginal improvement in overall results. Such an improvement has obviously been achieved in Houston, and with such results, most people would accept as tolerable a reasonable increase in the severe complication rate. It is, on the other hand, very difficult to understand why Fletcher's results have not been equalled or even approached by any other well established centre. When, for example, the treatment methods from the Christie Hospital, Manchester, are compared with those from Houston there really is no very marked difference in either technique or dosage but, the results from Manchester turn out to be very similar to those from other British centres and in no way approach the American figures. It is interesting, too, that in Stages 1 and 2 Manchester have found, as a result of a clinical trial, that parametrial irradiation makes no appreciable difference in results whilst in Houston external radiation therapy apparently plays a very great part in the treatment of even the earliest lesions.

Reappraisal of our results, in the light of the very excellent figures now being achieved and reported from such centres as Houston, indicate measures by which improvements in methods or techniques might be possible. There can be no doubt that the dose of external radiation directed at the lateral parametria in this particular series of cases is a modest one and considerably lower than that reported from other units.

For the past five years or more the external radiation has been delivered by cobalt teletherapy with both an increase in the volume treated and the dose administered. Whilst it is too early to detect any marked improvement in the results achieved there is no doubt that the incidence of severe complications has increased. In some advanced cases treatment has been wholly delivered by external cobalt radiation therapy. Numbers are small and in view of the very guarded opinions expressed by many on this particular technique one would hesitate to advocate its routine introduction in the treatment of less advanced cases.

It is difficult to understand why the results of Stage 1 cases treated should be so poor when the treatment prescribed was almost identical to that in use at Manchester. However, numbers are small and as already indicated or suggested some degree of selection did take place. The history of many of these patients, subsequent to their treatment, would also suggest that the initial staging was perhaps too generous or optimistic, for a surprising number were found to have developed distant metastases within six months of treatment.

Apart, too, from changes or modifications in actual radiation treatment techniques there are several other factors reported to have considerable bearing on the prognosis. All reports indicate that before treatment is started energetic measures should be taken to combat both pelvic infection and anaemia. Unfortunately, the high hopes in respect of serial biopsies and cytologic determination of radiosensitivity do not appear to have been fulfilled and neither would seem to offer any great advantage or assistance in clinical management of patients with carcinoma of the cervix. Whilst this may be so it is clear that early cases of carcinoma of the cervix treated radically by radiation should be closely followed up for some time following therapy. We would suggest that a joint clinic with consultant radiotherapists and gynaecologists in attendance would be the most satisfactory way of assessing such cases and at this clinic those women with resistant or recurrent carcinoma would be detected at a stage when radical surgery,

although hazardous might offer a reasonable hope of salvaging a number of otherwise doomed patients.

SUMMARY

A total of 520 cases of carcinoma of the cervix referred to the Northern Ireland Radiotherapy Centre over an 8-year period are reviewed. Treatment techniques are described in detail and the 5-year survival figures evaluated and compared with published figures from other centres. Methods by which the 5-year survival figures might be improved are discussed.

ACKNOWLEDGMENTS

We are indebted to our gynaecological colleagues, not alone for referring patients but also for their continuing co-operation in management. We also thank other members of staff from the centre for access to notes of patients treated by them.

Thanks too, are due to Miss McQuillan for typing the manuscript.

REFERENCES

FLETCHER, C. H. (1962). *Brit. J. Radiol.*, **35**, 5.

KOTTMEIER, H. L. (1958).*Amer. J. Obstet. Gynec.*, **76**, 243.

LEDERMAN, M. (1964). *Brit. J. Radiol.*, **37**, 745.

MELLOR, H. M. (1960). *Brit. J. Radiol.*, **33**, 20.

NEALON, T. F., Jnr., COLLINS, V. P. ,and WALL, J. A. (1965). *Management of the patient with Cancer*. Chapter 32.

PATERSON, R. and COLE, M. (1963). *The Treatment of Malignant Diseases by Radiotherapy*. Chapter 20.

PATERSON, R. and RUSSELL, M. H. (1963). *J. Radiol.*, **41**, 17.

SOUTH WESTERN REGIONAL CANCER RECORDS BUREAU (1966). Annual Report. **No. 13**, 29.

BOOK REVIEW

CUNNINGHAM'S MANUAL OF PRACTICAL ANATOMY. Vol. 3. Head and Neck and Brain. Revised by C. J. Romanes, B.A., M.B., Ch.B., F.R.C.S.Ed., F.R.S.E. Thirteenth Edition (Pp. vii+310; figs. 252. 30s paper, 40s cloth). London: Oxford University Press, 1967.

THIS is the second volume of the present edition to appear in print, Volume 1 on the limbs having been published last year (see review U.M.J. 1966, vol. 35 p. 74). The general layout has been brought into line with that in the previous volume. The text has been rewritten and the overall length reduced although new material has been added where desirable. An interesting approach to the dissection of the pharynx, larynx, mouth and nasal regions is given which allows these important structures to be examined from the medial side. This approach should facilitate the student when he comes to examine these parts in the living person. An improved method of dissecting the brain *in situ* is described in which large segments of the brain are removed rather than the whole brain at once. A much more realistic appreciation of the relations within the skull of the brain, cranial nerves and blood vessels should thus be obtained by the student. The more convential approach is also given for use when it is necessary to keep the brain intact for detailed study later.

All the illustrations have been redrawn and are supplemented by additional drawings and photographs. These have been used in particular in the section on the C.N.S. and should materially assist the student to gain a more ready understanding of the complex structures found there. This volume is highly recommended for use in the dissecting room by medical and dental students. It is to be hoped that the remaining volume of the present edition will not be long delayed so that uniform treatment of the body as a whole can be given throughout the course on dissection.

W.R.M.M.

although hazardous might offer a reasonable hope of salvaging a number of otherwise doomed patients.

SUMMARY

A total of 520 cases of carcinoma of the cervix referred to the Northern Ireland Radiotherapy Centre over an 8-year period are reviewed. Treatment techniques are described in detail and the 5-year survival figures evaluated and compared with published figures from other centres. Methods by which the 5-year survival figures might be improved are discussed.

ACKNOWLEDGMENTS

We are indebted to our gynaecological colleagues, not alone for referring patients but also for their continuing co-operation in management. We also thank other members of staff from the centre for access to notes of patients treated by them.

Thanks too, are due to Miss McQuillan for typing the manuscript.

REFERENCES

FLETCHER, C. H. (1962). *Brit. J. Radiol.*, **35**, 5.

KOTTMEIER, H. L. (1958).*Amer. J. Obstet. Gynec.*, **76**, 243.

LEDERMAN, M. (1964). *Brit. J. Radiol.*, **37**, 745.

MELLOR, H. M. (1960). *Brit. J. Radiol.*, **33**, 20.

NEALON, T. F., Jnr., COLLINS, V. P. ,and WALL, J. A. (1965). *Management of the patient with Cancer*. Chapter 32.

PATERSON, R. and COLE, M. (1963). *The Treatment of Malignant Diseases by Radiotherapy*. Chapter 20.

PATERSON, R. and RUSSELL, M. H. (1963). *J. Radiol.*, **41**, 17.

SOUTH WESTERN REGIONAL CANCER RECORDS BUREAU (1966). Annual Report. **No. 13**, 29.

BOOK REVIEW

CUNNINGHAM'S MANUAL OF PRACTICAL ANATOMY. Vol. 3. Head and Neck and Brain. Revised by C. J. Romanes, B.A., M.B., Ch.B., F.R.C.S.Ed., F.R.S.E. Thirteenth Edition (Pp. vii+310; figs. 252. 30s paper, 40s cloth). London: Oxford University Press, 1967.

THIS is the second volume of the present edition to appear in print, Volume 1 on the limbs having been published last year (see review U.M.J. 1966, vol. 35 p. 74). The general layout has been brought into line with that in the previous volume. The text has been rewritten and the overall length reduced although new material has been added where desirable. An interesting approach to the dissection of the pharynx, larynx, mouth and nasal regions is given which allows these important structures to be examined from the medial side. This approach should facilitate the student when he comes to examine these parts in the living person. An improved method of dissecting the brain *in situ* is described in which large segments of the brain are removed rather than the whole brain at once. A much more realistic appreciation of the relations within the skull of the brain, cranial nerves and blood vessels should thus be obtained by the student. The more convential approach is also given for use when it is necessary to keep the brain intact for detailed study later.

All the illustrations have been redrawn and are supplemented by additional drawings and photographs. These have been used in particular in the section on the C.N.S. and should materially assist the student to gain a more ready understanding of the complex structures found there. This volume is highly recommended for use in the dissecting room by medical and dental students. It is to be hoped that the remaining volume of the present edition will not be long delayed so that uniform treatment of the body as a whole can be given throughout the course on dissection.

W.R.M.M.

BOOK REVIEWS

TREATMENT OF COMMON ACUTE POISONING. By Henry Matthew and A. A. H. Lawson. (Pp. vii+151. 16s). Edinburgh and London: E. & S. Livingstone, 1967.

THIS concise well indexed book should be in the hands of all casualty officers. It is written by two general physicians who have had extensive experience of the treatment of acute poisoning at the Poisoning Treatment Centre at the Edinburgh Royal Infirmary. It gives clear if dogmatic instructions of what is needed in crises where often a life is at stake. There is a proper concern about the importance of prompt management of respiratory depression of shock and of the measures which should be taken to prevent further absorption of poisons. Many doctors still labour under the illusion that for each poison there is a specific antidote but in practice this is true in less than 2 per cent of poisoning episodes.

The authors give a useful table which shows when forced diuresis or other methods of encouraging the elimination of poisons is useful and when it is not: the therapy is not without its dangers.

If there is any criticism of the book it is that it omits to state that it is becoming increasingly common in our over medicated community for patients to take a number of different drugs at once when they attempt suicide.

There is a brief but interesting account of the size of the problem – acute poisoning accounts for up to 10 per cent of all medical admissions to some hospitals, a useful comment on the great reductions in mortality achieved by the successive introduction of the methods which now constitute the Scandinavian regime, and a helpful chapter on the psychiatric treatment of patients in whom so often attempted suicide is an anguished plea for help to a tortured mind.

O.L.W.

THE VESICO-VAGINAL FISTULA. By J. Chassar Moir, C.B.E., M.D.Edin., M.A.(Oxon.), D.M.(Oxon.), F.R.C.S., F.R.C.O.G. Second Edition. (Pp. 206; figs. 79, plates 2. 60s). London: Baillière, Tindall & Cassell, 1967.

AS one would expect from the author this book is most carefully prepared with all the essential detail beautifully presented and illustrated.

Chapters three to eight are classic. As an exposition of pre-operative care, surgical technique and post operative care they make delightful reading. Through these chapters the humanity of the writer is apparent as every detail which might add to the comfort and rapid convalescence of the patient is described.

This book should be read by everyone likely to work in countries where vesico-vaginal fistulae are common but also, most carefully, by those in other countries where the complication is less frequent.

It is a great contribution to the subject.

C.H.G.M.

DRUGS FOR YOUNG PEOPLE: THEIR USE AND MISUSE. By Kenneth Leech and Brenda Jordan. (Pp. 135. 10s 6d). Oxford: Religious Education Press, Ltd. (A member of the Pergamon Group), 1967.

THE authors of this book state that their purposes in writing it is to put young people in possession of the facts about drug-taking so that they will be better equipped to arrive at a balanced decision about this question which poses such a problem to the present generation of adolescents.

At the outset the authors discuss the value of drugs in present day medical practice quoting specific examples, and then proceed to consider the groups of drugs which are currently most prone to misuse, detailing the effects of drug abuse. Subsequently the psychological background to non-therapeutic drug-taking is described with emphasis on the adolescent predicament, and the management of the drug addict with reference to specific treatment centres

BOOK REVIEWS

TREATMENT OF COMMON ACUTE POISONING. By Henry Matthew and A. A. H. Lawson. (Pp. vii+151. 16s). Edinburgh and London: E. & S. Livingstone, 1967.

THIS concise well indexed book should be in the hands of all casualty officers. It is written by two general physicians who have had extensive experience of the treatment of acute poisoning at the Poisoning Treatment Centre at the Edinburgh Royal Infirmary. It gives clear if dogmatic instructions of what is needed in crises where often a life is at stake. There is a proper concern about the importance of prompt management of respiratory depression of shock and of the measures which should be taken to prevent further absorption of poisons. Many doctors still labour under the illusion that for each poison there is a specific antidote but in practice this is true in less than 2 per cent of poisoning episodes.

The authors give a useful table which shows when forced diuresis or other methods of encouraging the elimination of poisons is useful and when it is not: the therapy is not without its dangers.

If there is any criticism of the book it is that it omits to state that it is becoming increasingly common in our over medicated community for patients to take a number of different drugs at once when they attempt suicide.

There is a brief but interesting account of the size of the problem – acute poisoning accounts for up to 10 per cent of all medical admissions to some hospitals, a useful comment on the great reductions in mortality achieved by the successive introduction of the methods which now constitute the Scandinavian regime, and a helpful chapter on the psychiatric treatment of patients in whom so often attempted suicide is an anguished plea for help to a tortured mind.

O.L.W.

THE VESICO-VAGINAL FISTULA. By J. Chassar Moir, C.B.E., M.D.Edin., M.A.(Oxon.), D.M.(Oxon.), F.R.C.S., F.R.C.O.G. Second Edition. (Pp. 206; figs. 79, plates 2. 60s). London: Baillière, Tindall & Cassell, 1967.

AS one would expect from the author this book is most carefully prepared with all the essential detail beautifully presented and illustrated.

Chapters three to eight are classic. As an exposition of pre-operative care, surgical technique and post operative care they make delightful reading. Through these chapters the humanity of the writer is apparent as every detail which might add to the comfort and rapid convalescence of the patient is described.

This book should be read by everyone likely to work in countries where vesico-vaginal fistulae are common but also, most carefully, by those in other countries where the complication is less frequent.

It is a great contribution to the subject.

C.H.G.M.

DRUGS FOR YOUNG PEOPLE: THEIR USE AND MISUSE. By Kenneth Leech and Brenda Jordan. (Pp. 135. 10s 6d). Oxford: Religious Education Press, Ltd. (A member of the Pergamon Group), 1967.

THE authors of this book state that their purposes in writing it is to put young people in possession of the facts about drug-taking so that they will be better equipped to arrive at a balanced decision about this question which poses such a problem to the present generation of adolescents.

At the outset the authors discuss the value of drugs in present day medical practice quoting specific examples, and then proceed to consider the groups of drugs which are currently most prone to misuse, detailing the effects of drug abuse. Subsequently the psychological background to non-therapeutic drug-taking is described with emphasis on the adolescent predicament, and the management of the drug addict with reference to specific treatment centres

BOOK REVIEWS

TREATMENT OF COMMON ACUTE POISONING. By Henry Matthew and A. A. H. Lawson. (Pp. vii+151. 16s). Edinburgh and London: E. & S. Livingstone, 1967.

THIS concise well indexed book should be in the hands of all casualty officers. It is written by two general physicians who have had extensive experience of the treatment of acute poisoning at the Poisoning Treatment Centre at the Edinburgh Royal Infirmary. It gives clear if dogmatic instructions of what is needed in crises where often a life is at stake. There is a proper concern about the importance of prompt management of respiratory depression of shock and of the measures which should be taken to prevent further absorption of poisons. Many doctors still labour under the illusion that for each poison there is a specific antidote but in practice this is true in less than 2 per cent of poisoning episodes.

The authors give a useful table which shows when forced diuresis or other methods of encouraging the elimination of poisons is useful and when it is not: the therapy is not without its dangers.

If there is any criticism of the book it is that it omits to state that it is becoming increasingly common in our over medicated community for patients to take a number of different drugs at once when they attempt suicide.

There is a brief but interesting account of the size of the problem – acute poisoning accounts for up to 10 per cent of all medical admissions to some hospitals, a useful comment on the great reductions in mortality achieved by the successive introduction of the methods which now constitute the Scandinavian regime, and a helpful chapter on the psychiatric treatment of patients in whom so often attempted suicide is an anguished plea for help to a tortured mind.

O.L.W.

THE VESICO-VAGINAL FISTULA. By J. Chassar Moir, C.B.E., M.D.Edin., M.A.(Oxon.), D.M.(Oxon.), F.R.C.S., F.R.C.O.G. Second Edition. (Pp. 206; figs. 79, plates 2. 60s). London: Baillière, Tindall & Cassell, 1967.

AS one would expect from the author this book is most carefully prepared with all the essential detail beautifully presented and illustrated.

Chapters three to eight are classic. As an exposition of pre-operative care, surgical technique and post operative care they make delightful reading. Through these chapters the humanity of the writer is apparent as every detail which might add to the comfort and rapid convalescence of the patient is described.

This book should be read by everyone likely to work in countries where vesico-vaginal fistulae are common but also, most carefully, by those in other countries where the complication is less frequent.

It is a great contribution to the subject.

C.H.G.M.

DRUGS FOR YOUNG PEOPLE: THEIR USE AND MISUSE. By Kenneth Leech and Brenda Jordan. (Pp. 135. 10s 6d). Oxford: Religious Education Press, Ltd. (A member of the Pergamon Group), 1967.

THE authors of this book state that their purposes in writing it is to put young people in possession of the facts about drug-taking so that they will be better equipped to arrive at a balanced decision about this question which poses such a problem to the present generation of adolescents.

At the outset the authors discuss the value of drugs in present day medical practice quoting specific examples, and then proceed to consider the groups of drugs which are currently most prone to misuse, detailing the effects of drug abuse. Subsequently the psychological background to non-therapeutic drug-taking is described with emphasis on the adolescent predicament, and the management of the drug addict with reference to specific treatment centres

in England is outlined. At the conclusion of each chapter questions are provided for discussion and finally there is a useful glossary and a comprehensive bibliography.

To the medical reviewer the authors' lack of consistency in the use of proper names for drugs is irritating, but for the enquiring teenager, student nurse, undergraduate, teacher or youth group leader it is a useful book and probably one of the best of its kind, although some teenagers might feel that the tone was occasionally patronising.

In the introduction the authors quote their sources of information, but reveal nothing about themselves or the field in which they work. Although published by The Religious Education Press the emphasis is on education. E.M.I.

THE HEREDITARY HAEMOLYTIC ANAEMIAS. By J. V. Dacie, F.R.S., M.D., F.R.C.P.Lond. (Pp. 37; figs. 7. 7s 6d). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS small book is another in the series of lectures and symposia published by the Royal College of Physicians of Edinburgh and its subject is the first Davidson Lecture given by Professor Dacie in January of this year. Hereditary haemolytic anaemia is a large topic to encompass in a single lecture but as could be expected from such an authority, Professor Dacie gives an excellent account of the main forms of these anaemias in a manner marked by its conciseness and clarity. The lecture is directed to haematologists and to physicians who have some basic knowledge of haematology. It is mainly devoted to a discussion of hereditary spherocytosis, elliptocytosis, the non-spherocytic haemolytic anamias and the more recently understood hereditary Heinz-body anaemias. It deals with the laboratory findings in these disorders, their inheritance, pathogenesis and the effect of splenectomy in their treatment. The text is enriched by glimpses of the lecturer's extensive personal experience of his subject.

J.H.R.

BABY GYMNASTICS. By Detleff Neumann-Neurode. (Revised by Wendula Kaiser; translated from German by Agnes Wenham). (Pp. xii+39; figs. 36. 15s). Oxford: Pergamon Press, 1967.

THIS well intentioned little book very clearly brings out that when physical deformities occur in very early childhood, even a young baby can be made to perform exercises correctly by reflex response to an accurately placed stimulus in the hands of a skilled operator.

The section on advice to mothers seems commonsense, and is probably routine in antenatal clinics in this country.

In the section entitled "For Mothers—How to Exercise your Baby", some of the exercises are very difficult, and would require intensive tuition from a physiotherapist. One wonders if this is economical and practical? I feel that the emphasis should be rather on regular daily play sessions for a normal baby than on formal gymnastics.

M.J.K.

TREATMENT OF COMMON SKIN DISEASES: British Medical Journal. (Pp. 116. 10s). London: British Medical Association, 1967.

THIS little book is made up of articles originally published in the Current Practice section on the treatment of common skin diseases in the British Medical Journal in 1967. It is comparable to the other booklets, namely "Child Care" and "Obstetrics in General Practice", but unlike them, it is in paperback. The articles are written by experienced and senior dermatalogists for the most part writing on conditions in which they have been specially interested. The text is orientated entirely towards treatment. One picks out as especially good chapters on "fungal infections of the skin" and "psoriasis". It could be said that if a family doctor was thoroughly familiar with the contents of this book then he would find it comparatively easy to manage the majority of skin diseases which he sees in his practice.

Also I particularly liked the section on ichthyosis although unlike the other sections this does contain material which perhaps would be unfamiliar to a general practitioner. The

in England is outlined. At the conclusion of each chapter questions are provided for discussion and finally there is a useful glossary and a comprehensive bibliography.

To the medical reviewer the authors' lack of consistency in the use of proper names for drugs is irritating, but for the enquiring teenager, student nurse, undergraduate, teacher or youth group leader it is a useful book and probably one of the best of its kind, although some teenagers might feel that the tone was occasionally patronising.

In the introduction the authors quote their sources of information, but reveal nothing about themselves or the field in which they work. Although published by The Religious Education Press the emphasis is on education. E.M.I.

THE HEREDITARY HAEMOLYTIC ANAEMIAS. By J. V. Dacie, F.R.S., M.D., F.R.C.P.Lond. (Pp. 37; figs. 7. 7s 6d). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS small book is another in the series of lectures and symposia published by the Royal College of Physicians of Edinburgh and its subject is the first Davidson Lecture given by Professor Dacie in January of this year. Hereditary haemolytic anaemia is a large topic to encompass in a single lecture but as could be expected from such an authority, Professor Dacie gives an excellent account of the main forms of these anaemias in a manner marked by its conciseness and clarity. The lecture is directed to haematologists and to physicians who have some basic knowledge of haematology. It is mainly devoted to a discussion of hereditary spherocytosis, elliptocytosis, the non-spherocytic haemolytic anamias and the more recently understood hereditary Heinz-body anaemias. It deals with the laboratory findings in these disorders, their inheritance, pathogenesis and the effect of splenectomy in their treatment. The text is enriched by glimpses of the lecturer's extensive personal experience of his subject.

J.H.R.

BABY GYMNASTICS. By Detleff Neumann-Neurode. (Revised by Wendula Kaiser; translated from German by Agnes Wenham). (Pp. xii+39; figs. 36. 15s). Oxford: Pergamon Press, 1967.

THIS well intentioned little book very clearly brings out that when physical deformities occur in very early childhood, even a young baby can be made to perform exercises correctly by reflex response to an accurately placed stimulus in the hands of a skilled operator.

The section on advice to mothers seems commonsense, and is probably routine in antenatal clinics in this country.

In the section entitled "For Mothers—How to Exercise your Baby", some of the exercises are very difficult, and would require intensive tuition from a physiotherapist. One wonders if this is economical and practical? I feel that the emphasis should be rather on regular daily play sessions for a normal baby than on formal gymnastics.

M.J.K.

TREATMENT OF COMMON SKIN DISEASES: British Medical Journal. (Pp. 116. 10s). London: British Medical Association, 1967.

THIS little book is made up of articles originally published in the Current Practice section on the treatment of common skin diseases in the British Medical Journal in 1967. It is comparable to the other booklets, namely "Child Care" and "Obstetrics in General Practice", but unlike them, it is in paperback. The articles are written by experienced and senior dermatalogists for the most part writing on conditions in which they have been specially interested. The text is orientated entirely towards treatment. One picks out as especially good chapters on "fungal infections of the skin" and "psoriasis". It could be said that if a family doctor was thoroughly familiar with the contents of this book then he would find it comparatively easy to manage the majority of skin diseases which he sees in his practice.

Also I particularly liked the section on ichthyosis although unlike the other sections this does contain material which perhaps would be unfamiliar to a general practitioner. The

in England is outlined. At the conclusion of each chapter questions are provided for discussion and finally there is a useful glossary and a comprehensive bibliography.

To the medical reviewer the authors' lack of consistency in the use of proper names for drugs is irritating, but for the enquiring teenager, student nurse, undergraduate, teacher or youth group leader it is a useful book and probably one of the best of its kind, although some teenagers might feel that the tone was occasionally patronising.

In the introduction the authors quote their sources of information, but reveal nothing about themselves or the field in which they work. Although published by The Religious Education Press the emphasis is on education. E.M.I.

THE HEREDITARY HAEMOLYTIC ANAEMIAS. By J. V. Dacie, F.R.S., M.D., F.R.C.P.Lond. (Pp. 37; figs. 7. 7s 6d). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS small book is another in the series of lectures and symposia published by the Royal College of Physicians of Edinburgh and its subject is the first Davidson Lecture given by Professor Dacie in January of this year. Hereditary haemolytic anaemia is a large topic to encompass in a single lecture but as could be expected from such an authority, Professor Dacie gives an excellent account of the main forms of these anaemias in a manner marked by its conciseness and clarity. The lecture is directed to haematologists and to physicians who have some basic knowledge of haematology. It is mainly devoted to a discussion of hereditary spherocytosis, elliptocytosis, the non-spherocytic haemolytic anamias and the more recently understood hereditary Heinz-body anaemias. It deals with the laboratory findings in these disorders, their inheritance, pathogenesis and the effect of splenectomy in their treatment. The text is enriched by glimpses of the lecturer's extensive personal experience of his subject.

J.H.R.

BABY GYMNASTICS. By Detleff Neumann-Neurode. (Revised by Wendula Kaiser; translated from German by Agnes Wenham). (Pp. xii+39; figs. 36. 15s). Oxford: Pergamon Press, 1967.

THIS well intentioned little book very clearly brings out that when physical deformities occur in very early childhood, even a young baby can be made to perform exercises correctly by reflex response to an accurately placed stimulus in the hands of a skilled operator.

The section on advice to mothers seems commonsense, and is probably routine in antenatal clinics in this country.

In the section entitled "For Mothers—How to Exercise your Baby", some of the exercises are very difficult, and would require intensive tuition from a physiotherapist. One wonders if this is economical and practical? I feel that the emphasis should be rather on regular daily play sessions for a normal baby than on formal gymnastics.

M.J.K.

TREATMENT OF COMMON SKIN DISEASES: British Medical Journal. (Pp. 116. 10s). London: British Medical Association, 1967.

THIS little book is made up of articles originally published in the Current Practice section on the treatment of common skin diseases in the British Medical Journal in 1967. It is comparable to the other booklets, namely "Child Care" and "Obstetrics in General Practice", but unlike them, it is in paperback. The articles are written by experienced and senior dermatalogists for the most part writing on conditions in which they have been specially interested. The text is orientated entirely towards treatment. One picks out as especially good chapters on "fungal infections of the skin" and "psoriasis". It could be said that if a family doctor was thoroughly familiar with the contents of this book then he would find it comparatively easy to manage the majority of skin diseases which he sees in his practice.

Also I particularly liked the section on ichthyosis although unlike the other sections this does contain material which perhaps would be unfamiliar to a general practitioner. The

in England is outlined. At the conclusion of each chapter questions are provided for discussion and finally there is a useful glossary and a comprehensive bibliography.

To the medical reviewer the authors' lack of consistency in the use of proper names for drugs is irritating, but for the enquiring teenager, student nurse, undergraduate, teacher or youth group leader it is a useful book and probably one of the best of its kind, although some teenagers might feel that the tone was occasionally patronising.

In the introduction the authors quote their sources of information, but reveal nothing about themselves or the field in which they work. Although published by The Religious Education Press the emphasis is on education. E.M.I.

THE HEREDITARY HAEMOLYTIC ANAEMIAS. By J. V. Dacie, F.R.S., M.D., F.R.C.P.Lond. (Pp. 37; figs. 7. 7s 6d). Edinburgh: Royal College of Physicians of Edinburgh, 1967.

THIS small book is another in the series of lectures and symposia published by the Royal College of Physicians of Edinburgh and its subject is the first Davidson Lecture given by Professor Dacie in January of this year. Hereditary haemolytic anaemia is a large topic to encompass in a single lecture but as could be expected from such an authority, Professor Dacie gives an excellent account of the main forms of these anaemias in a manner marked by its conciseness and clarity. The lecture is directed to haematologists and to physicians who have some basic knowledge of haematology. It is mainly devoted to a discussion of hereditary spherocytosis, elliptocytosis, the non-spherocytic haemolytic anamias and the more recently understood hereditary Heinz-body anaemias. It deals with the laboratory findings in these disorders, their inheritance, pathogenesis and the effect of splenectomy in their treatment. The text is enriched by glimpses of the lecturer's extensive personal experience of his subject.

J.H.R.

BABY GYMNASTICS. By Detleff Neumann-Neurode. (Revised by Wendula Kaiser; translated from German by Agnes Wenham). (Pp. xii+39; figs. 36. 15s). Oxford: Pergamon Press, 1967.

THIS well intentioned little book very clearly brings out that when physical deformities occur in very early childhood, even a young baby can be made to perform exercises correctly by reflex response to an accurately placed stimulus in the hands of a skilled operator.

The section on advice to mothers seems commonsense, and is probably routine in antenatal clinics in this country.

In the section entitled "For Mothers—How to Exercise your Baby", some of the exercises are very difficult, and would require intensive tuition from a physiotherapist. One wonders if this is economical and practical? I feel that the emphasis should be rather on regular daily play sessions for a normal baby than on formal gymnastics.

M.J.K.

TREATMENT OF COMMON SKIN DISEASES: British Medical Journal. (Pp. 116. 10s). London: British Medical Association, 1967.

THIS little book is made up of articles originally published in the Current Practice section on the treatment of common skin diseases in the British Medical Journal in 1967. It is comparable to the other booklets, namely "Child Care" and "Obstetrics in General Practice", but unlike them, it is in paperback. The articles are written by experienced and senior dermatalogists for the most part writing on conditions in which they have been specially interested. The text is orientated entirely towards treatment. One picks out as especially good chapters on "fungal infections of the skin" and "psoriasis". It could be said that if a family doctor was thoroughly familiar with the contents of this book then he would find it comparatively easy to manage the majority of skin diseases which he sees in his practice.

Also I particularly liked the section on ichthyosis although unlike the other sections this does contain material which perhaps would be unfamiliar to a general practitioner. The

advice given here regarding the management of ichthyosis is excellent. Only one of the chapters, namely that on fungal infections of the skin is illustrated. One of the longest chapters is that on the management of warts which reflects the nuisance value of this condition not only in hospitals but in general practice. In spite of this long chapter the opening sentence is the one I like best—"The best way of managing warts is to let them manage themselves".

J.M.B.

WARD PROCEDURES AND TECHNIQUES. By Philip Cooper, M.D. (Pp. xii+303; illustrated. 50s). New York: Appleton-Century and London: Butterworth, 1967.

THE intention of the author is that this book should give "a basic introduction to ward procedures and techniques for clinical clerks, interns, residents. It is intended not only to aid trainees by giving them a better comprehension of these procedures and techniques so that they may perform them intelligently, efficiently and safely, but also to lessen their bewilderment and their anxieties as they start their clinical work". The book should fulfil this aim. It is well written, clear and concise. There is remarkably little repetition, yet hardly any need for cross reference. The price at 50s for a 300 page, 30 chapter paperback is perhaps slightly high for the individual student or houseman. The book should, however, have a most useful role as a ward bench-book, readily available to pre-registration residents and senior house officers.

While the detail of technique recommended might not follow the exact steps currently in vogue in a specialist unit, fundamental general principles are not overlooked. The procedures commonly performed in a unit are not the troublesome ones for a houseman. He soon learns these. It is those not so commonly undertaken which cause anxiety. This book deals with a great number of procedures, ranging from those connected with pre-operative management, through routine diagnostic techniques and more complicated diagnostic (and therapeutic) procedures to post-operative management and the treatment of complications, both general and those following specialist surgery. It contains much useful information, but for house surgeons and senior house officers the chapters on wound care and post-operative drainage are particularly helpful.

The main weakness is in those sections dealing with specialist procedures such as angiography and cardiac catheterization. Here perhaps too much detail is given for some procedures not usually performed by the junior trainee. He can best learn from a combination of watching and asking the expert, reference to more comprehensive monographs, and practice under supervision. The occasional reference to "Dakin's solution" or "Sims position", without further description is mildly irritating. The first chapter dealing with conventional American ward rounds is not particularly relevant to this country. These are, however, but minor criticisms of a basically sound and good book.

W.A.H.

PATHOLOGY by the late J. L. Pinniger and revised by J. R. Tighe. Second Edition. (Pp. 288. 21s). London: Baillière, Tindall & Cassell, 1967.

A second edition has been called for in three years and revisions in many sections have been made by Dr. Tighe.

While one may hold that the approach to pathology should be through general pathology integrated with the basic medical sciences, and that a larger canvas is needed even to introduce the subject, it must be admitted that the authors have produced a readable and highly informative text integrated with clinical practice. The authors justify the absence of illustrations by emphasising that the student should see diseased tissues at autopsies and in surgical specimens and under the microscope and should study colour transparencies. We think the student should also supplement the material given here by further reading, but students may find this a useful introduction and a help in organising their knowledge before examinations.

J.E.M.

advice given here regarding the management of ichthyosis is excellent. Only one of the chapters, namely that on fungal infections of the skin is illustrated. One of the longest chapters is that on the management of warts which reflects the nuisance value of this condition not only in hospitals but in general practice. In spite of this long chapter the opening sentence is the one I like best—"The best way of managing warts is to let them manage themselves".

J.M.B.

WARD PROCEDURES AND TECHNIQUES. By Philip Cooper, M.D. (Pp. xii+303; illustrated. 50s). New York: Appleton-Century and London: Butterworth, 1967.

THE intention of the author is that this book should give "a basic introduction to ward procedures and techniques for clinical clerks, interns, residents. It is intended not only to aid trainees by giving them a better comprehension of these procedures and techniques so that they may perform them intelligently, efficiently and safely, but also to lessen their bewilderment and their anxieties as they start their clinical work". The book should fulfil this aim. It is well written, clear and concise. There is remarkably little repetition, yet hardly any need for cross reference. The price at 50s for a 300 page, 30 chapter paperback is perhaps slightly high for the individual student or houseman. The book should, however, have a most useful role as a ward bench-book, readily available to pre-registration residents and senior house officers.

While the detail of technique recommended might not follow the exact steps currently in vogue in a specialist unit, fundamental general principles are not overlooked. The procedures commonly performed in a unit are not the troublesome ones for a houseman. He soon learns these. It is those not so commonly undertaken which cause anxiety. This book deals with a great number of procedures, ranging from those connected with pre-operative management, through routine diagnostic techniques and more complicated diagnostic (and therapeutic) procedures to post-operative management and the treatment of complications, both general and those following specialist surgery. It contains much useful information, but for house surgeons and senior house officers the chapters on wound care and post-operative drainage are particularly helpful.

The main weakness is in those sections dealing with specialist procedures such as angiography and cardiac catheterization. Here perhaps too much detail is given for some procedures not usually performed by the junior trainee. He can best learn from a combination of watching and asking the expert, reference to more comprehensive monographs, and practice under supervision. The occasional reference to "Dakin's solution" or "Sims position", without further description is mildly irritating. The first chapter dealing with conventional American ward rounds is not particularly relevant to this country. These are, however, but minor criticisms of a basically sound and good book.

W.A.H.

PATHOLOGY by the late J. L. Pinniger and revised by J. R. Tighe. Second Edition. (Pp. 288. 21s). London: Baillière, Tindall & Cassell, 1967.

A second edition has been called for in three years and revisions in many sections have been made by Dr. Tighe.

While one may hold that the approach to pathology should be through general pathology integrated with the basic medical sciences, and that a larger canvas is needed even to introduce the subject, it must be admitted that the authors have produced a readable and highly informative text integrated with clinical practice. The authors justify the absence of illustrations by emphasising that the student should see diseased tissues at autopsies and in surgical specimens and under the microscope and should study colour transparencies. We think the student should also supplement the material given here by further reading, but students may find this a useful introduction and a help in organising their knowledge before examinations.

J.E.M.

advice given here regarding the management of ichthyosis is excellent. Only one of the chapters, namely that on fungal infections of the skin is illustrated. One of the longest chapters is that on the management of warts which reflects the nuisance value of this condition not only in hospitals but in general practice. In spite of this long chapter the opening sentence is the one I like best—"The best way of managing warts is to let them manage themselves".

J.M.B.

WARD PROCEDURES AND TECHNIQUES. By Philip Cooper, M.D. (Pp. xii+303; illustrated. 50s). New York: Appleton-Century and London: Butterworth, 1967.

THE intention of the author is that this book should give "a basic introduction to ward procedures and techniques for clinical clerks, interns, residents. It is intended not only to aid trainees by giving them a better comprehension of these procedures and techniques so that they may perform them intelligently, efficiently and safely, but also to lessen their bewilderment and their anxieties as they start their clinical work". The book should fulfil this aim. It is well written, clear and concise. There is remarkably little repetition, yet hardly any need for cross reference. The price at 50s for a 300 page, 30 chapter paperback is perhaps slightly high for the individual student or houseman. The book should, however, have a most useful role as a ward bench-book, readily available to pre-registration residents and senior house officers.

While the detail of technique recommended might not follow the exact steps currently in vogue in a specialist unit, fundamental general principles are not overlooked. The procedures commonly performed in a unit are not the troublesome ones for a houseman. He soon learns these. It is those not so commonly undertaken which cause anxiety. This book deals with a great number of procedures, ranging from those connected with pre-operative management, through routine diagnostic techniques and more complicated diagnostic (and therapeutic) procedures to post-operative management and the treatment of complications, both general and those following specialist surgery. It contains much useful information, but for house surgeons and senior house officers the chapters on wound care and post-operative drainage are particularly helpful.

The main weakness is in those sections dealing with specialist procedures such as angiography and cardiac catheterization. Here perhaps too much detail is given for some procedures not usually performed by the junior trainee. He can best learn from a combination of watching and asking the expert, reference to more comprehensive monographs, and practice under supervision. The occasional reference to "Dakin's solution" or "Sims position", without further description is mildly irritating. The first chapter dealing with conventional American ward rounds is not particularly relevant to this country. These are, however, but minor criticisms of a basically sound and good book.

W.A.H.

PATHOLOGY by the late J. L. Pinniger and revised by J. R. Tighe. Second Edition. (Pp. 288. 21s). London: Baillière, Tindall & Cassell, 1967.

A second edition has been called for in three years and revisions in many sections have been made by Dr. Tighe.

While one may hold that the approach to pathology should be through general pathology integrated with the basic medical sciences, and that a larger canvas is needed even to introduce the subject, it must be admitted that the authors have produced a readable and highly informative text integrated with clinical practice. The authors justify the absence of illustrations by emphasising that the student should see diseased tissues at autopsies and in surgical specimens and under the microscope and should study colour transparencies. We think the student should also supplement the material given here by further reading, but students may find this a useful introduction and a help in organising their knowledge before examinations.

J.E.M.