Charles Horner Greer Macafee (1898–1978)

President of the Ulster Medical Society 1958–59

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BURDEN'S GHOST

IN 1906 the founder of antenatal care, Dr. J. W. Ballantyne, read a valedictory address to the Edinburgh Obstetric Society. It took the form of a hypothetical, highly imaginative telephone conversation with the unknown President who should occupy the Chair thirty-four years later, in 1940. As it happened the normal activities of the Edinburgh Society were suspended during the war years. But in 1946, Professor R. W. Johnstone, then Professor of Obstetrics at Edinburgh, was the President and delivered a valedictory address. In it "evoking," to quote his own words, "Ballantyne's spirit without unduly disturbing his rest," he conducted his predecessor's ghost round the Edinburgh Medical School of 1946.

"Of the altruistic instincts," Osler once said, "veneration is not the most highly developed at the present day; but I hold strongly with the statement that it is the sign of a dry age when the great men of the past are held in light esteem." Sharing this view, I should like to follow Professor Johnstone's example and evoke the spirit of my predecessor, William Burden, the first professor of Midwifery in the Queen's College of Belfast, and show him how the seeds he had sown had grown into flourishing trees.

To most of our Fellows and Members the name of William Burden perhaps conveys little. The only child of Dr. Henry Burden, he was born in India in 1798. On the death of his father and mother when he was 12 years old, he came to Belfast to live with his three aunts, the Misses Burden. After being apprenticed to business, he studied medicine under Dr. James McDonnell in the old General Hospital, and then proceeded to Glasgow where he gained his M.D.

Returning to Belfast about 1830, he was elected a member of the Belfast Medical Society, the forerunner of this Society. For a short time he practised in Newry. In 1833, however, he settled in Belfast and in 1838 was appointed physician to the Belfast Maternity Hospital, a position he retained until 1870.

Image courtesy of the Office of Archives, R.V.H., Belfast

From 1840 to 1849 he lectured on midwifery and the diseases of women and children in connection with the Faculty of Medicine of the Belfast Academical Institution, and in 1848 he was elected President of that Faculty.

In 1849 he was translated to the newly-established Queen's College to be the first occupant of the Chair of Midwifery, which he occupied with distinction for eighteen years. He died in 1879 when he was 81 years of age.

Evoking Burden's spirit – I trust "without unduly disturbing his rest," I conducted my predecessor's ghost from Clifton Street via Townsend Street to the present site of the Royal Maternity Hospital.

The site of the old hospital in Clifton Street is now occupied by business premises and therefore my visitor could not orientate himself immediately. However, glancing at the other side of the street, he recognised the Charitable Institute. Ghostly visitors probably do not have the capacity of turning purple with rage or they have realised the futility of doing so.

Charles Horner Greer Macafee (1898–1978)

Professor WILLIAM BURDEN, M.D. Professor of Midwifery 1849-1867

"The Committee that ran that place in my time gave me a lot of trouble," was his only comment. To understand the reason for his comment we must look at the state of affairs in Burden's time.

The Medical Faculty at Queen's College had been founded in 1849, and after much trouble Professor Burden obtained permission in 1852 from the Ladies' Committee of the Hospital to admit medical students to the practice of the Hospital. In 1854 three students were courageous enough to defy the difficulties associated with obtaining instruction in practical midwifery.

Incorporated Belfast Maternity Hospital

To-day the training of medical students in any branch of medicine is taken for granted and it is therefore hard for us to appreciate the difficulties Professor Burden had to overcome.

In the first place, the Charitable Society, the ground landlords of the Hospital, claimed an increased rent because the Hospital, having been converted into a training school for medical students, was being used for a different purpose than that for which it had been founded. After a bitter and rather acrimonious struggle, Professor Burden managed to defeat the far from charitable Society.

Secondly, it was in 1852 that an ordinance of the Queen's University of Ireland was passed governing the curriculum for the teaching of obstetrics. With the compiling of this ordinance Burden probably played a great part, but there was no statutory body in existence to enforce the ordinance, as the G.M.C. was not established by Medical Act until 1858. It was not until 1886 that midwifery was first mentioned by the General Medical Council as a necessary subject for qualification.

I assured my visitor that the training of medical students in obstetrics which he had inaugurated in this School is now a flourishing and important part of the medical curriculum. I had to admit that between 1867 and the present time there had been a period of thirty-four years when the teaching of students had deteriorated and had almost ceased; one of his successors in the Chair of Midwifery not being on the staff of the Hospital, and another being prevented by the jealousy of his colleagues from doing his full duties.

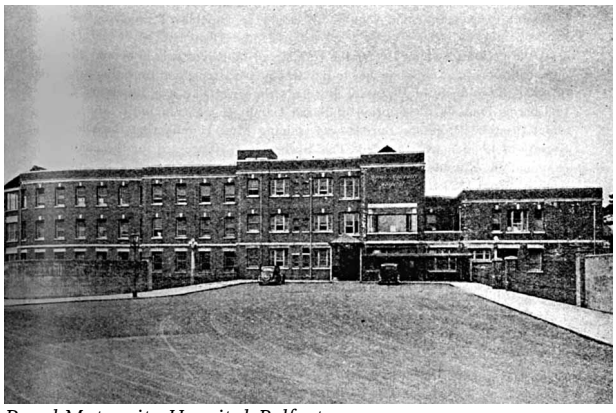
It was not until the years from 1921 to 1945, when the late Professor C. G. Lowry occupied the Chair, that teaching as we know it to-day was, or could be, revived.

Passing from Clifton Street to Townsend Street I drew my visitor's attention to the building which housed the hospital from 1904 to 1933. "Why did the Committee move from Clifton Street to this crowded site?" he asked. "It was against the wishes of the medical staff," I said, "but largely because the Charitable Society wished to remove them from Clifton Street." "That Society again interfering?" said Burden's ghost.

"With the passage of time and the development of the teaching school," I added, "this Hospital in Townsend Street proved to be unsuitable in every

respect. My immediate predecessor, Professor Lowry, aided by the then Professor of Medicine, Professor Lindsay, worked hard to remove the Hospital and amalgamate it with the main teaching hospital, which they succeeded in doing in 1930." "Did you say that the Professor of Medicine helped?" said my visitor. "The physicians were obstructionists in my time." "Professor Lindsay," I said, "was a man of long vision for which I and my successors must ever be grateful."

If I may say so to this Society, I feel that Professor Lindsay never received the credit which was his due, but I look forward to hearing some future president correct this omission.



Royal Maternity Hospital, Belfast

Arriving at the Royal Maternity Hospital I felt that my visitor required some explanation of the location of the Hospital. "In 1903," I said, "the old General Hospital, which you knew in Frederick Street, was closed, the patients and staff being moved to the hospital which you now see in front of you. The name of the Hospital was also changed to the Royal Victoria Hospital."

Taking him to the roof of Bostock House, the new Nurses' Home, I showed him the geographical arrangement of the Royal Victoria Hospital, the Children's Hospital and the University Departments. "I could never have believed," he said, "that such a close association would have been possible. It must be the envy of other teaching schools."

As we entered the Royal Maternity Hospital he was astonished at the number of nurses to be seen in the corridors and wards. He reminded me of his difficulty in getting nurses trained and that he had had to admit the first one with the status of a medical student against the wishes of the Committee.

The first nurse trained under this scheme was a Mrs. Hamill, who was charged a student's fee, and she had to be instructed alone as she was not allowed to attend lectures given to medical students. It has to be remembered that at this time there were no lady medical students.

To have mixed the sexes in a class would really have been too much for an early Victorian committee to have permitted. Smiling, my visitor said, "Do you remember what the Ladies' Committee had to say about this?" The Ladies' Committee had objected to Professor Burden's action and had written: "It was with considerable reluctance that the ladies revived the old custom of admitting nurses into the hospital, as it had generally been productive of great annoyance." In the second place, they regarded the charging of a student's fee as an imposition and the tuition as unnecessary. "They know it is impossible a woman could require or would be capable of receiving so much instruction."

At the period to which I refer the training of midwives was in chaos. The fully qualified midwife as we know her to-day was non-existent, and to gather some idea of what the midwife of Professor Burden's time was like it is necessary to refer to Charles Dickens' description of Sarah Gamp. It was not until 1858, that is, about the time Professor Burden was training Mrs. Hamill, that the Obstetrical Society of London was founded.

This Society in 1870 pressed for the compulsory examination of midwives and for legislation to restrain practice by untrained women. From 1872 to 1905 the Obstetrical Society of London conducted voluntary examinations and issued certificates of proficiency. Then in 1905 the Central Midwives' Board was established, and the midwives' roll at that time contained 22,308 names of whom 12,521 were so-called *bona fide* midwives holding no certificate. It is hard to believe that the last of these *bona fide* midwives disappeared from the practising Roll as recently as 1947. Therefore, in training midwives when he did, William Burden was indeed a man of foresight.

At this stage we approached the antenatal ward and I reminded my visitor of his own instructions to his Practical Midwifery class :

"To visit his patient once a week, or as often as necessary, and to mark the date of each visit on the recommendation paper."

I pointed out to him that had he detailed his reasons for advising his students to visit their patients once a week he should have been regarded as the inaugurator of antenatal care in the British Isles. "What is antenatal care?" he asked. "From my knowledge of Latin I know what 'ante-natal' means, but your use of the term seems to indicate that you

are referring to an established system."

"For the past forty years," I replied, "it has been recognised that the expectant mother requires supervision from the earliest weeks of pregnancy. Nowadays she attends either her family doctor, a hospital or public health antenatal clinic where she has routine regularly spaced examinations." "Is this really necessary?" he asked. "Most certainly," I said. It is a most important branch of preventive medicine because it permits us to recognise and correct at an early stage some of the complications of pregnancy and establishes an atmosphere of confidence between the patient and her attendants."

I told him that while the antenatal outpatients is an important function of any maternity hospital, the provision of antenatal in-patient accommodation is now regarded as a most vital part of the hospital work.

The first hospital bed to be set apart for the antenatal investigation and treatment of disease in the expectant mother was in Edinburgh in 1901 in response to the plea of Dr. J. W. Ballantyne. The first antenatal clinic to be established in 1910 was by Dr. T. G. Wilson, later Sir George Wilson, in Adelaide, South Australia, closely followed by one at Boston, U.S.A. I was glad to be able to tell my visitor that the first antenatal clinic in Ireland was started by Professor C. G. Lowry and Mr. H. L. Hardy Greer in 1921 in the old hospital at Townsend Street.

Ballantyne instituted antenatal care with the object of improving the prognosis for the unborn and newborn child. Since Ballantyne's time the scope of antenatal care has widened enormously, and to give my ghostly visitor some idea of the problems facing every obstetric department I took him round the antenatal ward.

As we passed from bed to bed I showed him cases of diabetes, cardiac disease, antepartum haemorrhage, patients with hypertension and, of course, the ever present pre-eclamptic toxaemia. "But what of eclampsia?" enquired Burden's ghost. I had to admit that while it had been hoped that antenatal care would eliminate this dread complication it is still an important cause of maternal mortality. I told him that even now we do not know the cause of pre-eclamptic toxaemia, and yet eclampsia can be prevented by rigid prenatal supervision. In view of this fact it was depressing to have to add that in England and Wales between 1952-1954, 110 women died from eclampsia, a preventable disease.

I had also to admit to my visitor that in Northern Ireland in 1957 39 women died from diseases due to pregnancy or childbirth, of which 10 died from toxaemia. "It is depressing," I said, "to think that since your time we have advanced such a short distance towards discovering the cause of this complication."

I next took him to the bed of a patient aged 25 who had been a diabetic for ten years. This patient interested him immensely. "Why," he asked, "is she still alive, and how did she manage to conceive?" "I presume she must be a very mild case or that she and her baby will die before full-term." "She certainly should not die," I said, "because we now have got the hormone insulin which was discovered by Banting and Best in 1921." "What is a hormone?" he asked. "A hormone," I explained, "is a chemical substance secreted by an endocrine gland into the blood stream, and insulin is the hormone secreted by cells in the pancreas which controls the metabolism of starch and sugar." "We rarely saw diabetics who were pregnant," said my visitor.

In Burden's time pregnancy in a diabetic patient was rare either because the patient died before the child-bearing period of life or because she was sterile as the result of genital atrophy. In 1882 Matthews Duncan reported a maternal mortality rate of 60 per cent. among diabetic mothers. In 1909 Whitridge Williams in America reported a maternal mortality of 27 per cent. in such patients, while to-day this figure would be infinitesimal.

Unfortunately, the results for the baby have not improved in the same way. I told him that nowadays one terminates the pregnancy somewhere between the 35th and 38th week, frequently by Caesarean section, to avoid the risk of an intrauterine death in the latter weeks of pregnancy. Even with insulin therapy and a well stabilised patient the foetal mortality is still about 25 to 30 per cent.

He was surprised to see so many cases of cardiac disease lying in the antenatal ward. "You seem to be running a medical ward in a maternity hospital," he remarked. I astonished him still further when I explained that in severe cases of mitral stenosis the pregnant patient can be operated on and have the stenosed valve stretched even when presenting signs of cardiac failure (2.7 per cent.). By this time he appreciated the close co-operation necessary between physicians, surgeons and obstetricians in the treatment of medical complications associated with pregnancy, and how this co-operation is facilitated by various departments being close together.

He was surprised to see a number of cases of antepartum haemorrhage lying in the antenatal ward. In some of these cases the cause of the haemorrhage was a placenta praevia, and he wondered if it was safe to leave them undelivered.

TABLE 1.
Placenta Praevia.

Author	Dale	Maternal Mortality %	Foetal Mortality %
Simpson	1844	30	60
Berkeley	1936	7	59
Browne	1939	5	54
Grant (R. M. H.)	1955	0	12

We have to remember that in 1844 Simpson stated that the maternal mortality associated with this complication was 30 per cent. and the foetal mortality 60 per cent. It is possible that in Burden's time, when the treatment was bipolar version, the maternal and foetal mortality was probably the same. In 1936, Berkeley showed that the position had changed to the extent that the maternal mortality was only 7 per cent. with a foetal loss of 59 per cent. Three years later Professor F. J. Browne showed that the situation was much the same, with a 5 per cent. maternal and a 54 per cent. foetal loss.

"To-day," I said, "by postponing any treatment to as near full term as possible, and delivering a large percentage of cases by Caesarean section, the foetal loss is about 10 to 12 per cent., while the maternal loss is under one per cent."

Time did not permit us to discuss many of the other patients when we passed on our way upstairs to the Lying-in Ward. He was delighted with the cheery sunlit wards and with the babies lying in the cots at the side of the mothers' beds. Although none of the mothers was walking about, he was surprised to hear that normally the patient gets up on the second or third day, but was astonished to find that only 50 per cent. of the mothers were breast-feeding. "How do you manage to get wet nurses for all the babies?" he said. In his curriculum for medical students the importance of the wet nurse is stressed. For example, the following appeared as a subject for one of his lectures :

"*The management of children after birth, washing, dressing, food, etc., and the choice of a wet nurse, and the treatment of such accidents as take place at this period, or soon after.*"

Indeed, a question on the choice of a wet nurse frequently appeared on the midwifery paper of that time. During Professor Burden's regime the following announcement appeared for several years in the Annual Report of the Maternity Hospital:

> "A register of wet and monthly nurses is also kept for the convenience of the public and is open to the inspection of subscribers for the payment of one shilling and to all others on payment of half a crown."

It is hard to appreciate to-day the difficulties encountered if the mother died or could not breast feed her baby. The many proprietary foods on the market to-day were not available in Burden's time and even later. Even feeding bottles are a relatively modern invention. Reading the opening chapters of Dombey & Son may make us realise that many babies must have died of starvation or gastro-enteritis from infected milk if a wet nurse could not be secured or afforded.

TABLE 2.

	Per 1000 Total Births	Per 1000 Live Births
1730–1749	600*	–
1838–1839	159	–
1871	153	–
1951	–	30
1956	–	24

*Died before 2 years.

That this was so is reflected in the infant mortality figures in various epochs. At the period 1730 - 1749, 600 out of every 1,000 children born died before reaching the age of two years. In 1871, 53 babies of every 1,000 died in the first year of life, whereas in 1956 the mortality was 24 per 1,000 live births.

Informing him that we no longer employ wet nurses, and promising to show him the milk preparation room, I pointed out a baby who had had an exchange transfusion. "What do you mean by that?" he asked. I briefly explained to him the importance of the Rhesus factor. He was amazed to hear that icterus gravis, hydrops foetalis and haemolytic anaemia of the newborn are all related to the same factor. "We used to think that hydrops foetalis was due to syphilis," he said. I told him that by removing a large proportion of the erythroblastotic baby's blood and replacing it with suitably typed blood, most of the cases of icterus gravis and almost all of the cases suffering from haemolytic anaemia can be saved.

From the Lying-in ward we passed to the Labour suite and he was amazed to find that it was relatively quiet. This feature made him wonder if all the patients in labour had been given morphia. He was intensely interested to learn that the duration of labour had shortened considerably and that nowadays any patient in labour for much over 12 to 14 hours must be reviewed as she has to be regarded as abnormal.

"Why is the duration of labour reduced?" he

asked. "There are probably many factors," I replied. "There is a different psychological approach to pregnancy and labour to-day as compared with earlier times, and improved antenatal care, nutrition and anaesthesia have all contributed towards this reduction."

By this time he appreciated the value of antenatal care in helping one to anticipate or avoid complications, and was delighted to hear that the destructive operations, so frequently required in his day, are rarely necessary. He was surprised at the extensive use of Caesarean section in cases such as placenta praevia and disproportion, cases that in his time were dealt with by podalic or internal version.

"What of the forceps operation?" he asked. "I am not sure that I approved of those instruments, as they often damaged the baby," he remarked. "Forceps are still frequently used," I said, "in fact, the forceps rate in this hospital is about 15 per cent., but they are only used when the head is deep in the pelvic cavity or actually on the perineum." I told him that the high forceps operation had been abandoned and for the very low application small forceps of the Wrigley type are used to expedite the second stage.

He regarded the anaesthetic apparatus in the Labour Ward almost as an infernal machine. Of course, Burden had experience of chloroform anaesthesia, as Sir James Young Simpson used chloroform in obstetrics for the first time in November 1847, two years before Burden was appointed to the Chair, and on April 7, 1853, John Snow had administered chloroform to Queen Victoria at the birth of Prince Leopold. It was hard for my ghostly visitor to realise that apart from domiciliary midwifery chloroform is now rarely used. It was also impossible for him to appreciate the deep debt of gratitude the obstetricians owe to the anaesthetists for having made possible and safe many obstetric manoeuvres and operations carried out to-day. For having put at the disposal of all obstetric patients many pain-relieving drugs or gases the anaesthetists can claim to have helped in the reduction of both maternal and neonatal mortality and to have removed a great deal of the dread of childbirth so common until recent times.

Obstetric anaesthesia is now a highly specialised and most difficult branch of anaesthesia, and only those of us who can look back on the anxieties of the "rag and bottle" era can fully appreciate the service we receive to-day. We have, however, to pay a tribute to many family doctors who became skilled anaesthetists as the result of years of experience. There were, however, episodes which, while amusing in retrospect, gave one serious anxiety at the time.

"Why are the nurses and doctors wearing those white pieces of cloth over their faces?" he said. Before answering his question I had to remember that it was not until 1879, the year that Burden died, that Pasteur described the finding of microbes in the lochia of women suffering from puerperal sepsis.

I said to him, "Those pieces of cloth are masks which prevent the microbes normally present in the noses and throats of doctors and nurses being conveyed to the patients delivered in the Labour Wards or Theatres." He was horrified to think that in his time he might in this manner have infected patients whom he had delivered. I comforted him by pointing out that it was not until the late 1920's that Lancefield in New York and Dora and Leonard Colebrook in London, showed that many cases of fatal puerperal sepsis were the result of the transfer of haemolytic streptococci from the nose and throat of the attendant to the patient. "Has the wearing of masks made any difference to the incidence of puerperal sepsis?" Before replying I took my visitor upstairs to the Rea Ward, the isolation unit of the hospital. "'This unit," I said, "was incorporated in this Hospital when it was built in 1933 to accommodate cases of puerperal sepsis. Until about 1939 it was used solely for this purpose, but to-day there is not a single case of puerperal sepsis in the unit. It is now used for cardiac cases or patients suffering from pulmonary T.B."'Do you mean to say that there are no cases of puerperal sepsis in this hospital," asked my ghostly visitor. "That is so," I replied. "You will remember the work of Alexander Gordon of Aberdeen in 1789, Oliver Wendell Holmes in 1843, and Semnelweiss in 1846. Since your time, Pasteur in 1879, Koch in 1882 and the Colebrooks in this century completed our knowledge of the cause of puerperal sepsis and some of the ways of preventing it."

I told him also of the additional important factors such as the discovery of Prontosil by Domagk in 1935 and of Penicillin by Fleming in 1929, with its development by Florey and his colleagues during the years 1939–1940. These powerful chemotherapeutic and antibiotic agents revolutionised the treatment of puerperal sepsis due to the haemolytic streptococcus. It was with regret that I had to admit to my visitor that the misuse by the medical profession of the antibiotic agent Penicillin and the many others discovered since is likely to make the treatment of many types of infection very difficult or impossible in the future.

"The virtual abolition of puerperal sepsis must

have reduced the maternal mortality," suggested Burden's ghost. "This is quite true," I said, "because even a quarter of a century ago sepsis was responsible for more than one-third of the maternal deaths. We have, however, some way to go before the figure for maternal mortality rate is entirely satisfactory." For his information I elaborated this point.

In England and Wales in 1928 there were 2,920 women who died as the result of pregnancy or from causes directly associated with it, an incidence of 1 in 226. This appalling figure stirred the public conscience and a Departmental Committee on Maternal Mortality and Morbidity was appointed. This Committee attempted to assess the primary avoidable factor in each case and since that time each maternal death has thus been analysed. In the years 1952, 1953 and 1954, approximately 1,800 women died as a result of pregnancy or associated causes such as cardiac disease. If the mortality rate which was a feature of 1928 had persisted throughout these three years, then approximately 9,000 women would have died.

While conditions have obviously improved, we are still short of the ideal, especially when we read in the recent Wrigley Report that the four largest groups of deaths which together account for two-thirds of the total were due to toxaemia, haemorrhage, abortion and pulmonary embolus. Two additional groups have been considered, namely, deaths after Caesarean section, which accounted for 183 deaths, and complications of anaesthesia. Puerperal sepsis accounted for only 3.8 per cent. of deaths and this remarkable decrease is the most outstanding factor in the reduction of maternal mortality.

The fact that toxaemia of pregnancy and haemorrhage account for a large proportion of the maternal deaths is a grave reflection on those practising obstetrics. As already mentioned, in 1952 to 1954, 110 mothers died from eclampsia, a disease which is preventable with close supervision, and in the toxaemic group as a whole, avoidable factors were considered to be present in over 50 per cent. of the cases.

In referring to haemorrhage the assessors in the Wrigley Report were of the opinion that where the haemorrhage was antepartum half the deaths could have been prevented, and in the postpartum group 90 per cent. of the mothers should not have died.

In 1928 the risk of the expectant mother dying from her pregnancy or associated causes was 1 in 226. In 1955 this risk was 1 in 1,500 which signifies considerable progress, but there are still some aspects of our maternity services that are black; to quote from the Wrigley Report – "Avoidable factors were considered to be certainly present in 40 per cent. of the deaths directly due to pregnancy and childbirth."

How have we progressed in Northern Ireland? An investigation similar to that carried out in England and Wales is proceeding here, and I am indebted to the Ministry of Health and Local Government, and Mr. Greer, for supplying me with some of the relevant details.

TABLE 3.
Northern Ireland,

Year	Infant Mortality	Maternal Mortality
1926	86	6.21
1936	77	7.30
1946	54	2.92
1956	29	0.85
1957	-	1.3 (estimated)

If one looks at the Table for Infant and Maternal Mortality there is an improvement up to 1956, but then we see that the Maternal Mortality rate has again risen above one per 1,000 In 1956 and 1957, 64 women died from childbirth and diseases associated with pregnancy. From a preliminary review of these patients it would appear that, as in England and Wales, the percentage of avoidable factors is high.

Obviously there is no room for complacency, indeed there is need for anxiety – anxiety on the part of everyone concerned to see that all avoidable factors are eliminated.

As we passed from Rea Ward I showed him the resident doctors' and pupils' quarters. When he found that between the University and the Hospitals Authority (a body which I had to explain later) I am allowed in the Department seven qualified doctors of which at least three are likely to be at consultant level, he said, "You do not know how lucky you are to have all those assistants." I fully agreed with him and took the opportunity of explaining to him that many former residents are now holding important consultant appointments in Northern Ireland or in teaching departments in other parts of the world. He viewed the accommodation for medical students, and when I said that it is not ideal he was very caustic. "My poor students had nothing like this," he said, and I had to admit that until 1925 there was no proper accommodation for students doing their practical training.

The history of residential accommodation for

students is interesting. In Professor Burden's time, and for a long time afterwards, the student tried to get lodgings as near the hospital as possible. At one stage, the late Dr. J. S. Morrow told me, the lodgings were in Upper Townsend Street which was some distance from Clifton Street. The students were warned that a patient was in labour by the nurse placing a white card in the window of the Labour Ward which looked on to Stanhope Street at the side of the hospital. To obviate the necessity for a student having to stand all the time in Stanhope Street a 'Tele' boy was employed to keep a watch on the window. When he notified the presence of the card to the students in Upper Townsend Street he received the sum of six pence. The penalty for false notification was the threat of an operation which plays a large part in the Jewish ritual.

At a later stage the lodging house was in 20 Regent Street, quite close to the hospital, and then in 1925 the University bought the two houses in Townsend Street.

As we passed the door of Johnstone House I explained to him that there are 15 private beds available in this wing. He was amazed to find that roughly 50 per cent. of all confinements now occur in institutions, and that if sufficient beds were available this figure would be in the region of 70 to 80 per cent. In one area in Northern Ireland 85 per cent. of births take place in public or private obstetric beds. "This is a revolution," he said, "but must be much safer and easier for all concerned." I admitted that it is easier for both consultant and patient, but could not entirely agree that it is always safer. Hospital confinements where so many mothers and babies are collected together can only be safer than a confinement at home if a most rigorous standard of asepsis is maintained to avoid the ever present danger of cross infection.

From Johnstone House we went to the Nursery which, as the result of the work of Professor Allen, is one of the most up-to-date establishments in the United Kingdom. My visitor had seen the babies in the Lying-in Wards, and I explained that the Nursery is for complicated or ill babies. "Do you resign all responsibility for the newborn baby?" said my rather surprised guest. "No indeed," I said, "but we have close co-operation with the paediatrician in the care of the child." I explained that nowadays the care of the premature baby has become an almost specialised field, and in addition we are indebted to the paediatrician for the early recognition of certain anatomical abnormalities, e.g., tracheo-oesophageal fistulae, for all exchange transfusions in babies with erythroblastosis and for the treatment of the potentially infected baby.

As I had promised, I showed him the Milk Room on the opposite side of the corridor, where we not only sterilise and prepare the bottle feeds for the modern milk bottle and the care taken to sterilise it astonished my visitor and was in complete contrast to what he might have seen 100 years ago.

As we walked up the corridor I pointed out to him the near-by Department of Gynaecology. "I did not do any gynaecology," he said, "but I am interested to learn that now the two subjects are combined in the one Chair." Gynaecology (the term was first used in 1847) as a subject, apart from surgery, really did not exist until after 1845 when Marion Simms became the pioneer of the subject by operating on patients suffering from vesico-vaginal fistula and later treating such a condition in the Empress Eugene. Ephraim McDowell of Kentucky had done the first ovariotomy in 1809, but it was not until after Listerian principles were accepted

in 1870, and anaesthesia became safer, that abdominal gynaecology began to develop. I explained to my guest that the great attraction of gynaecology is that it forces us to be partly physician, partly surgeon, and most times a psychologist.

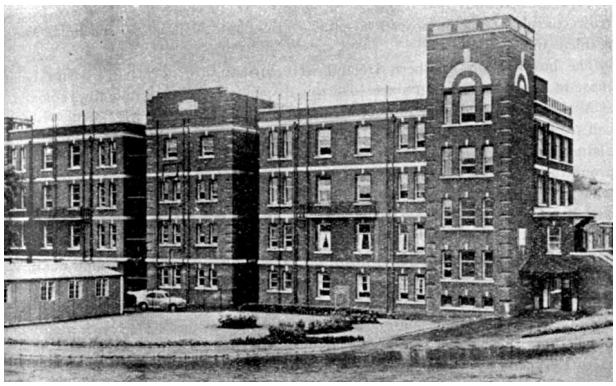
He listened astounded as I explained briefly the relationship of the anterior pituitary gland to the ovaries, the adrenals, thyroid, etc. I told him as well as I could of the ovarian and pituitary hormones, of which, of course, he was completely ignorant. He was astounded when I told him that now we refer with assurance our doubts as to the existence of an early pregnancy to the arbitrament of a toad, thereby elevating those despised animals to the rank of obstetric consultant.

From the Hospital I took him to the Institute of Clinical Science and showed my University Department. He was amazed at the facilities of the beautiful building, the lecture theatres, the proximity of all the University clinical departments and the teaching hospitals. Most of all did he wonder at the provision of laboratories in the clinical departments. "What point have these?" he asked. "What have laboratories to do with maternity work? Surely any physician can test urine." So I told him something of erythroblastosis, of blood oxygens, and of the rapid advances which had resulted in the publication of more papers in the last ten years than in the previous one hundred in the history of the School. "Someone put a lot of thought and work into the layout of these buildings," said my visitor. "Yes," I replied, "one of your successors in the Deanship, Professor Biggart, was

behind the idea that the building should be on this site and was responsible for the layout of the various departments."

Ivy Building, City Hospital

My conducted tour would have been incomplete had I failed to show my visitor the Jubilee Maternity Hospital. He had, of course, remembered the establishment of the parent building in 1840, but had never seen the Ivy building, the original maternity block, to which the Jubilee Maternity Hospital is attached. (The Ivy building was not opened until 189.4.) He was again impressed with the developments that had taken place on this hospital site. When he had viewed the two hospital groups a thought suddenly struck him. "Where do you get all the money to run these hospitals?" You surely cannot



Jubilee Maternity Hospital, City Hospital

depend on voluntary subscriptions to maintain the services I have seen to-day."

I explained to him that in July, 1948, all the medical services in the United Kingdom were taken over by the Government. In Northern Ireland the administration of the hospital service is vested in a body called the Hospitals Authority. I added that the Governments, both in Great Britain and Northern Ireland, had underestimated the cost of the Health Service and that this, in my opinion, was partly due to the fact that neither Government had appreciated the proportion of gratuitous medical advice and treatment given prior to 1948.

I told my visitor that the hospitals he had seen at the Royal Victoria Hospital site had been built and equipped by voluntary subscriptions and donations. The hospitals in association with the Jubilee Maternity Hospital had originally been provided by the Ratepayers of the City, but now both hospitals are financed by the Taxpayers through the Hospitals Authority. The first budget of the Hospitals Authority was in the region of £5 million, the budget for 1958 - 1959 is in the region of £12 millions. These figures horrified my visitor, but I told him that this much-criticised body had revolutionised the hospital services in Northern Ireland. Now consultant and improved hospital services are available to the most remote resident in the area.

The hospitals in Northern Ireland were structurally twenty-five years behind those in Great Britain, but since 1948 this disparity has been gradually removed.

At this stage he showed signs of weariness, and said, "Mr. President, what you call time is passing and I must return to my rest. You need make no excuse for disturbing it. The development of the medical school amazes me and makes one proud to have been associated with its early days. To have received recognition of what at the time seemed to me to be a small contribution but which you assure me was the foundation stone well laid, has indeed been gratifying. I am happy to think that I had in my time a share in sowing the grain which you are now reaping. What I have seen and heard of the triumphs over disease and death will make my rest the sweeter. To see puerperal sepsis apparently defeated, to see the quest for the relief of pain so effectively pursued, to see the co-operation between all branches of the profession in combating the diseases associated with pregnancy, and to note the amazing improvement in foetal and maternal mortality which is partly the result of improved teaching and practice, makes me proud to have played even a small part on this great stage."