CHAPTER XV

THE NEW ROYAL INFIRMARY, 1880-1889

INFIRMARY VISITED BY ROYALTY—DISTRIBUTION AND ALLOCATION OF BEDS—CHANGES IN THE PERSONNEL, THE OFFICIALS AND THE HONORARY VISITING STAFF—ELECTION OF THE STEWARD—APPOINTMENT OF JOINT TREASURER AND CLERK—FINANCES OF THE INFIRMARY—TWO NEW SPECIAL DEPARTMENTS, DISEASES OF THE EAR AND THROAT AND OF THE SKIN.

With the completion of the hospital and the successful transference of "the family" and patients from the old to the new buildings, the Royal Infirmary took a fresh lease of life. Standing on a wide expanse of ground, eleven acres in extent, sloping gently downwards from Lauriston Place to the Meadows, with its southern exposure and freedom from any encircling barrier of lofty tenements, the hospital as a group of buildings was a pleasing architectural addition to the city. Soon after its occupation Her Most Gracious Majesty Queen Victoria honoured the Infirmary with a visit. She was then in residence at the Palace of Holyroodhouse in connection with the great Review of Scottish Volunteers held in August 1881, since known as "the Wet" Review on account of the continuous, torrential rainfall which converted the parade ground into a sea of mud. In commemoration of this visit a surgical and a medical ward were named respectively the "Victoria" and the "Albert." In August 1884 the Prince and Princess of Wales also inspected the hospital, naming one ward "Albert Edward" and another "Alexandra."

Although the general design and layout of the several pavilions have already been sketched, a more detailed description of the accommodation and of the resources of the hospital is essential: only with this knowledge can a correct impression be gained of its enormous expansion during the next fifty years, a period in which the Infirmary has become the largest voluntary hospital in Great Britain. The

architect had been instructed to prepare plans for a hospital capable of containing 500 beds, but the actual number provided was 555, of which 279 were in the surgical and 276 in the medical hospital.[1] While the majority of the surgical wards contained 16 beds, all the medical wards, twelve in number, had 23 beds. A liberal floor space was allowed so that in future years when the necessity arose, as it very soon did, beds could be added without inconvenience. A somewhat greater proportion was assigned to male than to female patients.

It would be incorrect, however, to assume that all the beds were immediately available for patients. The managers were not in a position to meet the cost of maintaining the full complement, as it was still necessary to provide in part of the old Infirmary an establishment for the treatment of cases of infectious fevers during ordinary seasons (p. 255). This made a demand upon the funds which precluded the use of the whole of the accommodation in the hospital in Lauriston Place: consequently, four wards were at first held in reserve, two surgical—32 beds—and two medical—46 beds—or 78 in all, thus reducing the number available to 477 beds, rather more than those in daily use in the old Infirmary prior to its evacuation.

In these circumstances no increase was at first made in the personnel of the honorary medical and surgical staff which remained, as in the old hospital, twenty-four in number, eleven Fellows of the Royal College of Physicians and thirteen of the Royal College of Surgeons.[2] Of the former group five were professors of clinical medicine, one being in charge of beds for the treatment of diseases of women; three were ordinary physicians; two, assistant physicians; and one was extra-physician for diseases of women. The surgical staff was constituted as follows: the two professors of surgery, three ordinary acting surgeons, one extra acting surgeon without

[1] A certain number of cots is included in these figures.

[2] These figures do not include the consulting physicians and surgeons. The names of individual members of the staff will be found in Appendix II. The pathologist to the Infirmary, being in receipt of a salary, was not a member of the honorary staff and is not included in these figures.

beds, three assistant surgeons, two ophthalmic surgeons, one surgeon for the treatment of ovarian disease and one dental surgeon. Specialism in medicine, therefore, which during the next half century was to exercise so profound an influence upon the expansion of the Infirmary, was still in its infancy: the subjects then regarded as deserving of special study were comparatively few in number, and the beds set apart for the treatment of such cases formed a small proportion of the total bed accommodation.

The distribution and allocation of the 555 beds are seen in the subjoined table.

Table showing the Number, Distribution and Allocation of the Beds in the New Royal Infirmary, October 1879.

Total Beds.	Distribution.	Allocation.	
555	195 General Surgery *	2 Professors of Surgery . .	87
		3 Surgeons-in-Ordinary . .	102
		1 Casualty Ward . . .	6
			—195
	208 General Medicine	4 Professors of Medicine . .	104
		3 Physicians-in-Ordinary . .	104
			—208
		In the Surgical House	
	74 Special Subjects	Diseases of the Eye . . .	20
		Venereal Diseases (female) .	16
		Ovarian Diseases (surgical treatment)	4
		Incidental Delirium . . .	12
		In the Medical House	
		Diseases of Women . . .	22
			— 74
	78 Reserve Beds . .	In Surgical House . . .	32
		In Medical House . . .	46
			— 78
555			555

* The 32 beds reserved in the Surgical House were originally earmarked for General Surgery, so that the total number of beds assigned to general surgical diseases in the new Infirmary was 227.

A glance in retrospect at this stage will reveal how the growing importance of surgery was increasing the demand for

more accommodation. With the introduction of chloroform anæsthesia by Simpson in 1847, surgical operations became more numerous, and as Lister's antiseptic principles in the treatment of wounds were more generally adopted, ensuring greater safety and more success in their performance, the field of surgery became considerably extended. When the new Infirmary was opened, forty-five years had elapsed since James Syme, on his appointment to the chair of clinical surgery in 1833, had become a member of the staff: at that date, 103 beds were allocated to general surgery. With the election of Joseph Lister as his successor in the chair in 1869, the number of surgical beds was increased to 190; and, with the occupation of the new Infirmary, ten years later, 227 beds were earmarked for a similar purpose, although only 195 were at first in daily use. In 1936 as many as 392 beds had been assigned for the treatment of general surgical cases, and the surgeons were seven instead of five in number as in 1879.

*Table showing the Increase in the Percentage of Surgical Cases undergoing Operation following the Introduction of the Listerian Principles of Wound Treatment with its Influence on the Range of Surgery.**

Royal Infirmary of Edinburgh—Regius Chair of Clinical Surgery.

Year.	Surgeon.	Number of Beds.	Cases in Surgical Beds.	Operations Performed.	Percentage of Operation Cases.	Percentage Mortality of Operations.
1850-51	I. James Syme	43	486	75	15·4	2·6
1865	II. James Syme	72	...	210	...	7·1
1871	III. Joseph Lister	50+	239	88	37·0	11·3
1907 (9 months, April-December)	IV. Thomas Annandale	70	715	402	56·5	5·7
1935	V. John Fraser †	58	1103	913	82·7	7·6

* *The Scottish Medical and Surgical Journal*, vol. xi. (July to December) 1902. "Fifty Years' Surgery in the Royal Infirmary, Edinburgh," by E. Scott Carmichael, F.R.C.S. Edin.

† Through the courtesy of Professor Sir John Fraser, K.C.V.O., Regius Chair of Clinical Surgery.

Prior to the period of Lister the range of surgery was restricted: amputations of limbs, excisions of joints, the removal of simple and malignant tumours, operations for stone in the bladder and occasionally for the cure of aneurism

formed a fair proportion of the operations performed. But, of the total, a very considerable number would be placed today in the category of minor surgical procedures. Operations on the abdomen and brain were conspicuous by their absence in the statistical figures in groups I, II and III in the Table. On the other hand, groups IV and V include a large percentage of abdominal operations, a number often of a serious nature for which immediate operation was undertaken in the hope of saving the lives of the patients. Consequently the percentage mortality in groups IV and V is adversely influenced by the inclusion of these grave cases.

At first there was very little increase in the membership of "the family" which came into residence in the new and more spacious buildings. Few additions were made to the nursing staff which, under the supervision of Miss Pringle and three assistant superintendents, numbered 101—65 nurses and 36 probationers.[1] The female domestic staff employed in the kitchen, laundry, linenry and wards were about sixty in number. The male staff in residence included those in the boiler-house and the two porters, who occupied the lodges at the main and east gates, the chief porter combining the duties proper to his office with those of gardener. Of the two dispensers the assistant, whose services might be in demand during the night, required to live in the hospital. In addition there were eleven resident physicians and surgeons. In anticipation of a considerable increase in the work and responsibilities connected with the catering department, hitherto in the hands of the housekeeper, the managers prior to entry to the new Infirmary appointed an official, the Steward, electing Mr John Macpherson to the post.[2] Receiving a salary of £100, with free house, coal and gas, he resided in the Infirmary and was responsible for the supply of provisions, stores and coals. He held the appointment for forty years and was succeeded in 1920 by Mr Andrew Whyte, the present Steward, who is not required to live in the

[1] Nurses were drafted for periods of training to the Fever House as required.

[2] Minutes, Royal Infirmary, 7th July and 4th August 1879. The Steward and the Assistant Dispenser had residential quarters in the basement of the south-east surgical pavilion.

hospital. "The family" then numbered somewhat less than two hundred: today the nursing staff alone is more than double that number.

During the first decade in the new Infirmary changes were made in the personnel of the officials responsible for the administration and internal economy of the hospital. Early in 1879 Mr Alexander McDougall had resigned the office of Treasurer.[1] Appointed Apothecary in 1839, Treasurer-Superintendent in 1846, and Treasurer in 1871, when the dual office was abandoned on the election of Deputy Surgeon-General C. H. Fasson as the first Superintendent, Mr McDougall thus served the Infirmary for forty years, during the whole of which period he proved a loyal and valuable servant to the Institution. The vacant Treasurership, with a salary of £300 per annum, was filled by the election of Mr Alexander Ellison Ross, S.S.C., who was at the same time granted permission to retain the post of secretary to the Society of Solicitors to the Supreme Courts.[2] But his tenure of office as Treasurer was brief, as he resigned in December 1880 on his appointment as Treasurer of the Free Church. At the same meeting of the Board of Management Mr James Spence Trainer, who since 1878 had acted as Cashier, was elected his successor to commence his work on 1st January 1881.

It was during his years of service that the dual offices of Treasurer and Clerk to the Corporation were combined. In May 1883 Mr Peter Bell, then eighty-one years of age, tendered his resignation as clerk on the ground that infirmities of age unfitted him for the further discharge of his duties. Appointed House Clerk in 1843 and Clerk to the Corporation in the following year, when Mr James Hope resigned, he had given forty years of continuous service to the hospital. Reluctant though the managers were to part with one who had so long and faithfully served them, they had no alternative but to accept his resignation, and in doing so continued his salary as a retiring allowance during the

[1] Chapter XII, p. 205.

[2] Minute, Royal Infirmary, 3rd March 1879.

remainder of his life.[1] Mr Bell died in 1884. Mr Trainer was appointed in 1883 to the conjoined offices of Treasurer and Clerk at a salary of £250 and, in order to help him in his work, Mr J. M. Buckmaster, a clerk in the Treasurer's department, was made his assistant at a salary of £100.[2]

In 1887, Miss Pringle, the Lady Superintendent of Nurses, having accepted a similar appointment of responsibility at St Thomas's Hospital, London, tendered her resignation to the Board. Appointed in 1874, with a thorough knowledge of the Nightingale system of training, she had given thirteen years of service to the Infirmary and, in minuting their appreciation of her work, the managers stated that the high character and efficiency of the staff of nurses and the general excellence of the domestic staff were due to her management.[3] The vacancy then created was filled by the election of Miss Frances Elizabeth Spencer who ten years earlier had joined the staff as junior Assistant Superintendent of Nurses.[4]

At this juncture changes also occurred amongst the members of the active honorary staff of physicians and surgeons. Of these a few now made their final exit: death claimed two or three, for others the hour of retirement had struck. In 1882, George William Balfour retired: born in the manse of Sorn in Ayrshire, one of the Balfours of Pilrig—the family into which Robert Whytt, the eighteenth-century physician, had married—he was the uncle of Robert Louis Stevenson. Spending most of his boyhood in the manse of Colinton where his father had become minister of the parish, George Balfour took the Licence of the Royal College of Surgeons of Edinburgh, graduated M.D. at St Andrews in 1845 and commenced practice in the villages of Corstorphine and Cramond. But eventually attracted to the city he became a Fellow of the Royal College of Physicians, lectured on medicine and was appointed to the staff of the Infirmary in 1867. Concentrating on clinical study he early achieved great

[1] Minutes, Royal Infirmary, 29th May and 11th June 1883.

[2] Mr Buckmaster died on 26th May 1891, and funeral expenses and one year's salary were granted to his widow.

[3] Miss Pringle died on 29th February 1920.

[4] Minutes, Royal Infirmary, 20th and 27th June 1887.

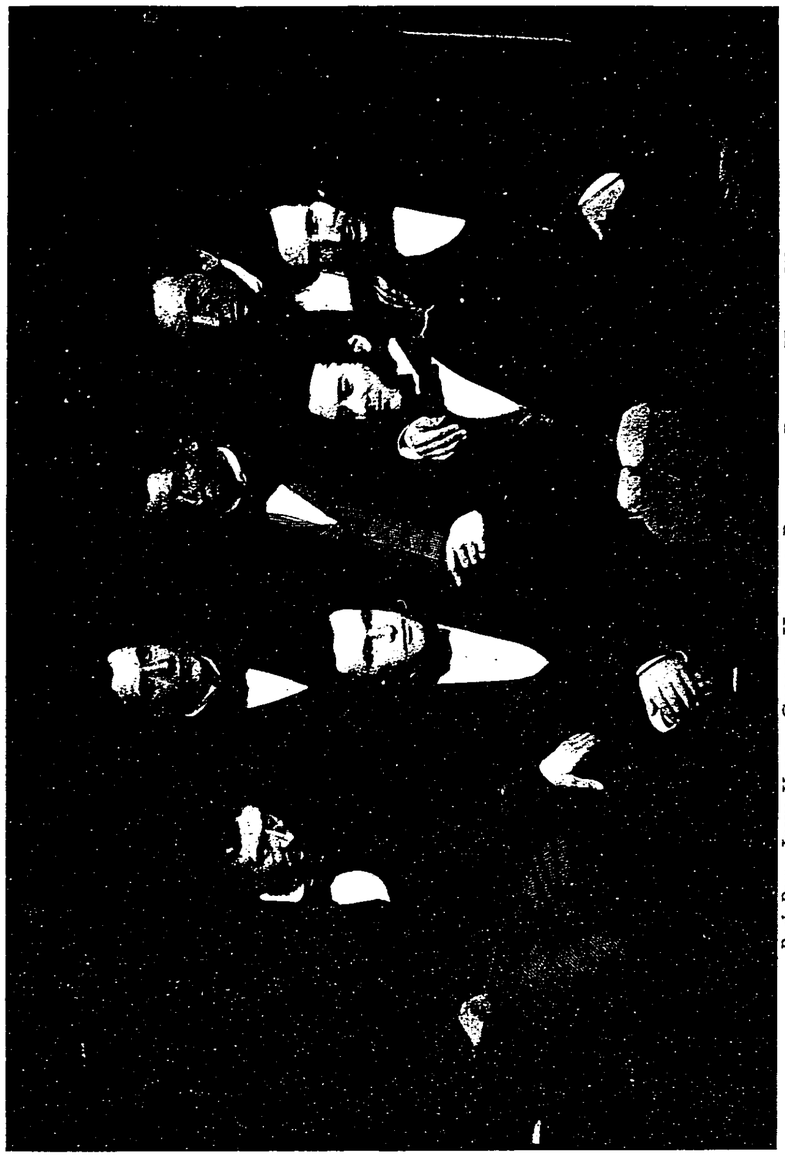
success as a physician and teacher, and the women whose cause he espoused in the early days of the movement for medical education were very fortunate in their champion.[1] As a widely recognised authority on diseases of the heart his writings on the subject were regarded as medical classics, and for several years after his retirement from the Infirmary he was a busy consultant. George Balfour died at Colinton, in 1903, at the age of eighty. With the retirement of Andrew Douglas Maclagan in 1885—he was knighted in the following year—the hospital lost the services of one who had been a member of both the medical and surgical staff. Graduating doctor of medicine at Edinburgh in 1833 and, in the same year, admitted a Fellow of the Royal College of Surgeons, he was appointed assistant surgeon to the Infirmary in 1842 and acting surgeon in 1848. But his tenure of this post was brief: medicine made the stronger appeal and, resigning in 1850, he began a course of lectures on materia medica in the extra-academical school and practised as a physician. But in 1862 he was appointed to the chair of forensic medicine "where he taught the lawyer Medicine and the physician Law." Admitted a Fellow of the Royal College of Physicians in 1864, he became eligible as a professor of medicine to take charge of clinical wards in the Infirmary. Sir Douglas became president of both the Royal Colleges and thus shared with his father, David Maclagan, and with him only, the unique experience of occupying both the presidential chairs.[2] This kindly, courteous, courtly knight occupied a position all his own in the medical profession of Edinburgh. He was the life of its social gatherings, the poet-laureate of its dining clubs, charming his fellow-guests with his own compositions sung in the purest tenor. He resigned the chair in 1896 and died in April 1900, aged eighty-seven years.

Patrick Heron Watson—knighted in 1903—was born on 5th January 1832 and, like his colleague George Balfour, was a son of the manse. A graduate of Edinburgh in 1853, he

[1] Chapter XIV, p. 247.

[2] Sir Douglas Maclagan was president of the Royal College of Surgeons in 1859 and of the Royal College of Physicians in 1884.

was house surgeon with James Spence in the summer of 1854 and one of the group of seven in the "Residency" along with Joseph Lister who held a similar appointment under James Syme. Joining the Army Medical Service in December of the same year, Heron Watson proceeded to the Crimea as surgeon. Appointed junior assistant surgeon to the Royal Infirmary in 1860, to fill the vacancy caused by Lister's appointment to the chair of surgery in the University of Glasgow, he commenced his long service to the hospital. On the termination of his period of acting surgeon in 1878, his application for extension as such was refused, but the position of extra-acting surgeon was given to him with the charge of fifteen beds, "this service being limited to the occupancy of the present building"; but he remained as extra-acting surgeon in the new Infirmary without the charge of beds till 1886. A skilful and bold surgeon, "as an operator no one could touch him. He had the elegance and rapidity of pre-anæsthetic days when speed was the great desideratum, while in the range of his operations he was a generation before his time: he had excised the larynx and the spleen and had performed hysterectomy when such operations had hardly been thought of by others." An impressive and dignified personality, nothing ruffled his composure, no sudden, unexpected emergency interrupted the even tenour of his surgical procedure. He was equally successful as a physician and his prescriptions and directions to his patients were characterised by their neat and faultless caligraphy. Sir Patrick was Honorary Surgeon in Scotland to two Sovereigns and he was twice elected president of the Royal College of Surgeons of Edinburgh. Joseph Bell, the great-grandson of Benjamin Bell, the eighteenth-century surgeon in Edinburgh, left the hospital in the same year as Heron Watson. House surgeon with James Syme, 1859-61, and house physician with William Tennant Gairdner, Bell was appointed assistant surgeon to the Infirmary in October 1865 to fill a vacancy in the junior staff, Thomas Annandale being elected as his colleague in the same year to a similar post. Becoming acting surgeon in 1871 Bell at once established himself as a favourite



Back Row—John Kirk. George Hogarth Pringle. Patrick Heron Watson
Front Row—John Beddoe. Joseph Lister. David Christison. Alexander Struthers

JOSEPH LISTER AND HIS FELLOW-RESIDENTS, OLD ROYAL INFIRMARY, SUMMER, 1854

(From a photograph in "The Residency," Royal Infirmary)

clinical teacher. He cultivated the habit of rapid observation, training himself to take note of details which to others might appear as unimportant trifles and this, coupled with the gift of accurate deduction, made him a remarkable diagnostician. To a larger public beyond the walls of the Infirmary he was recreated in the person of one of the most popular characters of detective fiction, the "Sherlock Holmes" in the writings of his former pupil Sir Arthur Conan Doyle. After leaving the Infirmary he became the first surgeon to be attached to the Royal Edinburgh Hospital for Sick Children.

In the light of the present-day income and expenditure, a statement of the financial position of the Infirmary at the close of the year 1879-80 must necessarily be one of considerable interest as establishing further evidence, if such be necessary, of the great expansion of the hospital and the many obligations incurred during the years that have since elapsed. On 1st October 1880—the end of the first financial year in the new Infirmary—the Ordinary Stock and Funds at the credit of the Corporation were represented by a sum of £131,164; but to this must be added certain further sums earmarked for special purposes—a balance at the credit of the Convalescent House at Corstorphine, another balance at the credit of the Furnishing Fund of the new hospital, and the special fund for the New Nursing Department—which together made a total sum of £133,225. From this it was necessary, however, to deduct £50,752, standing at the debit of the Building Fund Account, thus leaving £82,473 in the Stock and Funds of the Corporation at that date. But there remained a prospective asset of £30,000, the value attached to the old buildings in Infirmary Street, so that a potential sum of £112,473 then stood at the credit of the Infirmary.[1]

The Ordinary Income during the first year of occupation was £21,540—an increase of £2841 over that of the previous year—while the Ordinary Expenditure was £27,818, being an excess over Income of £6278: this excess of expenditure over

[1] The sum finally obtained from the sale of the old property was £28,500. Chapter XIII.

income was nearly double that incurred during the last year in the old Infirmary. The Extraordinary Income derived from donations and legacies above £100 in value amounted to £18,255 : after deducting from this the excess of expenditure for the year 1879-80 there remained for transference to Capital Account the sum of £11,977. The factors mainly responsible for the increased expenditure were the maintenance of the separate establishment in the old Infirmary implying a sum of £2000, and the larger outlay on wages, coal and light in the new Infirmary, involving a sum of £2930 in excess of what had been previously expended on these items. It was at once obvious that some economy in coal would require to be effected and an alteration made in the arrangements for heating the buildings, the necessity for which was further emphasised during the specially severe winter of 1880-81. As many as 477 fire-places had been originally introduced, more than double the number in the old Infirmary, yet the temperature of the wards proved very unsatisfactory. The removal from the wards of a number of the open fire-places, a step which later permitted of the addition of more beds, and the introduction of a system of steam heating at a comparatively small cost, not only reduced the expenditure on coal but greatly improved the comfort of the inmates.

The annual average cost of the upkeep of an occupied bed was then calculated to be £60 and, with a view to supplementing the funds of the Infirmary, the recommendation was made that individuals or groups of individuals should undertake to maintain one or more by subscribing towards their endowment. The bed thus endowed would henceforth be named after the donor by attaching a plate inscribed with his or her name to the wall at its head. For the purpose of endowment the annual sum of £50 or £60 was considered sufficient or, alternatively, a capital sum of £1000 to be paid into the funds of the hospital. The first benefactors to whom the Infirmary was indebted for this form of maintenance were " The Scholars of Merchiston Castle School " who endowed and named a bed, while the second by Miss Downie of Appin, Argyll, was called the " Appin Bed." Both these gifts were made in 1881 and the

beds were placed in two of the surgical wards. The practice, thus started, has been continued through succeeding years and today 255 beds and cots are maintained by special donations and bequests. But with the ever increasing cost of maintenance, calculated in 1936 at £175 per bed, at least £3000 are required for endowment, but £2000 for a bed or £1000 for a cot are accepted and the donor's name is attached.

In computing the annual average cost of occupied bed it should be clearly understood that the sum is calculated upon the total ordinary expenditure incurred in defraying the day to day expenses of all the departments of the hospital, an expenditure which includes such diverse items as the salaries of the officials in the various administrative departments and the antiseptics and surgical dressings provided for the numerous out-patients. The cost does not comprise, however, payments made on items of extraordinary expenditure such as structural improvements upon existing buildings or on the construction of extensions.

Shortly after the occupation of the new hospital the Infirmary was again most fortunate in the receipt of certain legacies of an exceptional character which, when added to the Capital Stock, provided for a considerable increase in annual revenue. In 1882-83 three legacies of the total value of £140,765 were received : the sum of £13,520 from Dr Thomas Hunter, Deputy Inspector General of Hospitals ; £27,245 from Mr Thomas Laing of Linhouse in the County of Midlothian ; and £100,000 from Dr Duncan Vertue, Edinburgh, formerly in the Honourable East India Company's Service.[1] In recognition of these munificent gifts wards were named the " Hunter," " Laing " and " Vertue " wards.

Year by year the number of patients seeking advice steadily increased : during 1879-80, 5315 were treated in the wards, five years later they numbered 7624 and, in the final year of the decade, 8606 were under treatment.[2] The managers, when considering the requests of the physicians and surgeons

[1] Dr Duncan Vertue's estate eventually yielded £115,000.
[2] The first and second figures include the cases of fever in the old Infirmary.

for additional facilities, were compelled at first "to hasten slowly," so long as they were hampered by the expenditure on the maintenance of the fever patients. Further, they had to decide whether such potential resources as were available in the hospital should be utilised on behalf of the special branches in medicine and surgery, then claiming recognition, or whether something more should be done to meet the requirements of general medicine and surgery. The time had undoubtedly arrived when, both in the interests of the patient and in those of medical education, the demands of specialism could not be neglected; and, so far as circumstances then permitted, the managers endeavoured to act equitably in the interests of all the parties concerned.

In 1883-84 two special out-patient departments were established, one for diseases of the ear and throat and the other for diseases of the skin, but in neither case was any provision made for indoor cases till 1891. In March 1883 Peter McBride was appointed aural surgeon in charge of the ear and throat department and, in the spring of the following year, William Allan Jamieson was elected extra-physician for diseases of the skin. Both were lecturers in their respective subjects in the extra-academical school of medicine, so that the creation of clinical departments in the Infirmary gave due recognition to the status of both these specialties. Otology and laryngology had been struggling for some years to overcome the indifference with which they were regarded by the general hospitals and teaching schools in which, with very few exceptions, they had no *locus standi*, patients seeking advice for ear and throat complaints being relegated to the care of the junior surgeons and physicians. The pioneer work of Peter McBride placed the specialty on a firm foundation and, during twenty years of service in the Infirmary, he built up a large and important department from very small beginnings in a cramped and meagrely equipped out-patient room, communicating with the first-floor corridor of the surgical house.

As far back as 1848 special instruction had been given in diseases of the skin by John Hughes Bennett and later by Thomas Laycock who, as professors of medicine, taught in

the clinical wards of the Infirmary. But no specialist in dermatology was attached to the hospital till the appointment of Allan Jamieson in 1884, in charge of an out-patient department. He established regular clinics which attracted an ever-increasing number of students, and the crowded benches of the large lecture theatre on Saturday mornings testified to the popularity of his practical demonstrations on "skins." When, a few years after his appointment, he applied for additional beds his request was refused, all the physicians on the staff expressing their dissent on the ground that his clinics had already proved hurtful to clinical teaching in the medical wards![1] But two years later, in 1891, 12 beds were allocated to the two new departments, being equally divided between Peter McBride and Allan Jamieson in a male and female ward on the second floor of the surgical house, communicating with the north side of the main corridor.[2] Although no official ceremony marked this event the opportunity was taken by the resident physicians and surgeons to celebrate the occasion unofficially, utilising the wards as their sleeping quarters on the night prior to their occupancy by the patients, their presence being discovered in the early hours of the morning by an astonished night superintendent making her rounds of the hospital.

Further facilities were also extended to those services already regarded as deserving of special recognition: thus beds were added to the accommodation that had been provided for cases of incidental delirium in order to isolate those patients who became noisy and obstreperous in the general wards and a source of annoyance to their neighbours. A male Lock Ward of 16 beds was also opened and, in 1885, 20 additional beds were given to the extra-physicians for the diseases of women. For this latter purpose two rooms, each fitted with 10 beds, were prepared in the basements of the two central medical pavilions, access to them being obtained from the wards on the first floor immediately above them by constructing a covered-in spiral staircase outside one of the

[1] Minute, Royal Infirmary, May 1889.

[2] One of these wards is now fitted up as the X-ray Diagnostic Theatre, the other as the operating theatre connected with the fourth surgical charge.

two terminal circular turrets in each of these pavilions.[1] The rooms were used as sleeping quarters by the patients who were convalescing, as they spent their day and had their meals in the wards to which they had been originally admitted. Thus all the beds previously allocated to the gynæcologists were set free for cases of a graver and more urgent character. These basement rooms became familiarly known as the "Duck Ponds," and the origin of this requires some explanation.[2] The beds reserved for the treatment of diseases of women under one of the extra-physicians were situated on the third floor of the eastermost of the medical pavilions, and the convalescents, in order to reach their sleeping-quarters in the basement of the adjacent pavilion, had each evening to make a long trek. They descended two flights of stairs, passed along the connecting corridor on the first floor and entered the ward immediately above their allotted basement room: traversing this ward they finally disappeared down the circular staircase. This nightly procession of women waddling through the ward in single file, loosely clad, their feet shod with heelless slippers and preceded by their leader, a porter assigned to the duty, so tickled the sense of humour of the Sister in charge of the ward that she aptly described them as the ducks; hence the term "Duck Ponds." Under the Clinical Teaching Agreement between the University Court and the managers of the Royal Infirmary in 1913, the basement rooms in all the medical pavilions were fitted up and used for the instruction of students and they continued to be known collectively as the Duck Ponds.

In 1887, further five beds were given to Douglas Argyll Robertson for ophthalmic cases. In response to repeated requests by Thomas Keith for more facilities, 12 additional beds in the surgical hospital were assigned to him, between 1884 and 1887, to enable him to cope with the increasing number of cases requiring ovariotomy. Keith graduated at the University in 1848, was surgeons' clerk with James Syme

[1] None of the basements in the pavilions of the Infirmary are underground and all are provided with windows.

[2] The writer is indebted to Dr William Fordyce, M.D., Consulting Gynæcologist to the Royal Infirmary, for the explanation of the term.

in 1849-50 and, a few years later, joined the Royal College of Surgeons. Although established in general practice in Edinburgh with his brother George, he identified himself with obstetrics and gynæcology and, in 1862, three years before Lister treated his first case of compound fracture by antiseptic methods, Keith commenced his first series of operations of ovariotomy. His success in this special branch of abdominal surgery was attained by scrupulous attention to cleanliness in every detail. Having applied to the managers for facilities in the hospital, he was appointed, in 1870, extra-surgeon for the treatment of ovarian diseases and was given a small room of four beds in the old Infirmary, a room previously used for clerks and students suffering from infectious fevers. In accepting the accommodation he expressed the hope that he would obtain "something better when the new hospital opened."[1] He never enjoyed robust health: tall and spare, almost cadaverous in appearance, with his long hair and pointed beard, his clothes hanging somewhat loosely on his stooping shoulders, his figure was familiar in the streets of the city. When, in 1885, additional beds were allotted to him, his son Skene Keith was appointed special assistant to the surgeon for treatment of ovarian diseases. But in 1888 father and son left Edinburgh to continue their work in London and both the appointments expired. In accepting Thomas Keith's resignation the managers placed on record their sense of the importance and value of his work and of his skill and success in the Infirmary.

After the Town Council, in July 1885, had become responsible for the care of all cases of infectious fevers in the area, the managers proceeded to erect close to the west boundary of the property a small brick building on an open space between the surgical and medical houses: as an isolation and observation hospital it provided fourteen beds for patients suffering from erysipelas and for others whose symptoms suggested the possible onset of an infectious fever. "The Cottage," as it was sometimes called, still stands the first of several new buildings erected in the grounds of the

[1] Minute, Royal Infirmary, 7th November 1870.

Infirmary; but for many years it has ceased to be used for its original purpose. In 1920, it was fitted up as a small clinical research laboratory under the charge of Jonathan Campbell Meakins, the Christison professor of therapeutics; and in the summer of 1929, when no longer required for that purpose, it was re-equipped to accommodate the classrooms connected with the Preliminary Training School for Nurses.

The claims of general surgery and medicine, however, were not altogether neglected as, in 1883, the two wards originally held in reserve in the surgical house were opened. This did not add appreciably to the sum total of surgical beds as a smaller ward, previously used for surgical patients, was placed on the reserve list. At the same time the casualty ward on the first floor, near the entrance to the surgical house and which had not been employed to any extent, was handed over to the professor of clinical surgery, the reason assigned being that "as the lifts are now in operation there is now no necessity for a casualty ward!"[1] In the medical house one of the reserve wards was opened in 1885 for female patients, and James Ormiston Affleck—afterwards Sir James—was appointed in charge as fourth physician-in-ordinary. But the restrictions originally placed upon the number of beds assigned to the large surgical and medical wards were gradually removed and more beds were attached to each, the "side rooms" being also utilised for this purpose. Consequently, as the result of the several changes above enumerated, the managers were able to announce in their annual report, presented in January 1888, that 670 beds and 30 cots provided accommodation for 700 patients. Thus the new Infirmary in the first ten years of its existence had very rapidly expanded and increased its usefulness without the necessity—with the exception of "the Cottage"—of adding to the number of its original pavilions, proof of the care and foresight with which the architect had planned his scheme of the hospital. But the next decade was to witness a further remarkable expansion, so insistent became the demands of specialism.

[1] Minute, Royal Infirmary, March 1883.

CHAPTER XVI

THE NEW ROYAL INFIRMARY
THE EXTENSION SCHEME, 1890-1904

THE NEED OF HOSPITAL EXTENSION—THE CENTRAL HOME FOR NURSES—PURCHASE OF THE CHILDREN'S HOSPITAL AND THE JUNIOR SCHOOL OF GEORGE WATSON'S COLLEGE—THE NEW LAUNDRY—THE DIAMOND JUBILEE PAVILION—THE EYE, EAR AND THROAT PAVILIONS—THE NEW SURGICAL OUT-PATIENT DEPARTMENT—THE MEDICAL ELECTRICAL DEPARTMENT.

THE last decade of the nineteenth century witnessed the commencement of a remarkable era of expansion. It is an arresting and significant fact that, eleven years after the opening of the new Infirmary designed to accommodate 555 patients, it was necessary not only to build on the open spaces surrounding the original pavilions but to acquire fresh acres for a similar purpose. Since its foundation, in 1729, the Infirmary had never failed to respond to the demands of contemporary progress in Medicine and to give manifest proof of continued vitality and power of adaptability. The growth of the hospital had not been confined to the period of adolescence but, constantly reacting to stimulus from without, had persisted through middle life and even into the period which might legitimately be regarded as that of a respectable old age. Extension indeed has been the normal feature of the life-history of the Infirmary which thus retains both the appearance and the vigour of perpetual youth.

During the 'eighties, as related in the previous chapter, it had been possible to multiply the number of beds by utilising the potential capacity of expansion possessed by each ward, but the time had arrived when more accommodation could no longer be obtained in that way. The population in the areas from which the Infirmary drew the majority of its patients was steadily growing and, during the ten years in which the