

THE NEW ROYAL INFIRMARY, 1880-89

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

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hospital had been in Lauriston Place, the number under treatment in the wards showed an increase of 80 per cent. ; and figures were also produced to show that, during one month alone, 217 patients had been refused admission owing to the lack of the necessary accommodation. Moreover, the resources of the hospital as an integral part of the medical school were being severely taxed, and the small proportion of beds available for the clinical instruction of large numbers of students was a ground of serious complaint. The recent decision of the Board of Management to admit women to the hospital for a similar purpose only aggravated the prospective difficulties.¹

The number of students commencing the study of medicine at Edinburgh at that period may be accurately described as phenomenal : the maximum reached in 1889-90 surpassed all previous records, nor have they since been exceeded even in the peak year of the post-war influx in 1919-20. Three periods may be quoted in illustration : in the academical year 1875-76, 896 students matriculated in the faculty of medicine of the University, in 1885-86 the numbers had risen to 1873 and, in 1889-90, 2044 enrolled. The curriculum of study for qualification in Medicine then covered an obligatory period of four years, voluntarily extended to five years by a certain proportion of candidates ; and, although residence in Edinburgh was not required throughout the whole course of study, the majority undoubtedly selected to remain. While figures are not available to permit of a correct estimate of the actual proportion attending the hospital at any one time, those who were students of medicine during the 'eighties will retain a vivid recollection of the overcrowded state of the clinics in the wards in the charge of the clinical professors. At that period students in the extra-academical school preparing for the Triple Qualification of the three Scottish Medical Corporations were another factor to be reckoned with and, though barely fifty were then receiving clinical instruction in any one year, they nevertheless helped to swell the attendance in the Infirmary.

In the winter of 1885-86 the medical faculty had petitioned the Board of Management to provide additional beds not only

¹ Chapter xiv, p. 250.

CENTRAL HOME FOR NURSES

to accommodate more female patients—many of whom had to be refused admission—but to give better facilities for the instruction of those students attending the University clinics in medicine. The figures quoted in the letter from the faculty are instructive as throwing some light upon the number of students in the medical hospital : “ during the quinquennium, 1875-80, those attending the classes in clinical medicine in the winter session ranged from 92 to 188, but, during the succeeding quinquennium, they varied from 217 to 274 with every prospect of a further increase in the immediate future. Moreover, owing to the excessive numbers many are denied the opportunity of acting as clinical clerks in the wards.”¹

With all these facts before them the managers had no option save to give serious consideration to a new scheme of extension. But in the meantime another matter of urgent necessity claimed their attention. The time had undoubtedly arrived when a Central Home for the nursing staff seemed eminently desirable in place of the scattered quarters provided in dormitories in the attic floors of several of the pavilions of the hospital. Segregation of the nurses in a separate building, centrally placed, would offer a reasonable chance of procuring quieter surroundings and suitable accommodation for recreation, both conducive to maintaining a better standard of health. During the first ten years of occupation of the new Infirmary twenty-three nurses had been added to the staff and all the available rooms were being utilised. The proportion of nurses to patients was in the ratio of one to five, which was less than that in the principal hospitals in London where the ratio varied from one to 2.5 to one to 3 patients. Moreover, the number of surgical operations performed in the Infirmary during the same period had risen from 665 in the first year to 1811 in the last year of the decade, these figures excluding the operations in the ophthalmic wards. This entailed extra attention and threw a considerable strain upon the resources of the nursing department. Further, the large extension of

¹ Minute, Royal Infirmary, 9th November 1885. At that date the managers were unable to accede to the request for additional beds.

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the hospital then in contemplation would necessitate an addition of 50 nurses, thus increasing the numbers of the whole establishment to 214, including the lady superintendents, the nurses and probationers.

Prior to the transference of the hospital to Lauriston Place a Special Fund for the New Nursing Department had been accumulating from voluntary subscriptions, but the immediate difficulty concerned the site on which the Central Home should be placed. The only suitable area appeared to be the open space between the medical and surgical houses on the west side of the corridor and balcony connecting these two groups of buildings and adjacent to the administrative department. With the final selection of this situation the preparation of the plans was placed in the hands of Mr Sydney Mitchell, the architect, whose firm became responsible for the execution of the whole extension scheme of that period. The Home, built of red brick—known in future as "the Red Home"—was designed in the form of a quadrangle and restricted in height to two floors so as to interfere as little as possible with the access of light and air to the adjacent buildings. The foundations were laid in July 1890 and the building was ready for occupation in the spring of 1892. Although originally estimated at a cost of £13,000 and providing 60 bedrooms, the completed structure involved an expenditure of £18,972 with the provision, however, of 121 rooms, a separate bedroom being allotted to each nurse: a large recreation room and accommodation for nurses on the sick-list were also included. Access to the Home from the adjacent administrative department, in which was the nurses' dining-room, was obtained by means of a conservatory, and sufficient space remained available for a small garden to which a tennis court was afterwards added. Some of the vacated dormitories in the attic floors were used as sleeping-quarters for members of the domestic staff.

On the eve of the opening of the Red Home the Infirmary had to mourn the loss of its first Superintendent, Deputy Surgeon-General Charles H. Fasson who, during the twenty years in which he held the post, had amply justified the decision of the managers to introduce a resident official with

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APPOINTMENT OF EXTENSION COMMITTEE

disciplinary powers.¹ He had seen the old system of nursing give place to the new and he had been largely instrumental in reorganising the department: he had carried through the difficult and responsible task of transferring the establishment from Infirmary Street to Lauriston Place and had rendered valuable assistance in the negotiations between the Town Council and the Infirmary when the municipal authorities finally accepted the care of all persons suffering from infectious fevers in the city. He had recognised the necessity of providing a Central Home for Nurses, "watched over its erection and died much lamented on the eve of its completion," as the mural tablet at its entrance bears testimony. Fasson combined firmness of purpose with unvarying courtesy to, and consideration for, others.

In the following year another important office became vacant, that of Treasurer and Clerk, through the death of Mr James S. Trainer in November 1893, after fifteen years of service to the hospital. He had been the first to fill the conjoint post of Treasurer and Clerk instituted in 1883 upon the retirement of Mr Peter Bell.² In his capacity as Treasurer, Mr Trainer had been very successful in advocating the claims of the Infirmary for greater financial assistance throughout the wide area of the Scottish counties from which many persons had received the benefits of treatment in the hospital. The vacancy thus created was filled by the promotion of Mr William Strathie Caw who had been in the service of the hospital for thirteen years, during six of which he had acted as Cashier.

The decision having been reached to proceed with the extension scheme which had in view accommodation for approximately 200 patients and the provision of a new laundry, the managers, in February 1891, appointed an Extension Committee under the sub-convenership of Professor John Rankine—afterwards Sir John. It was quite obvious that for these purposes the Infirmary must extend its boundaries. With the north, east and south sides of the property definitely closed to any extension, new ground could only be obtained on the

¹ Chapter XII, p. 206.

² Chapter XV, p. 265.

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west side. A glance at the Plan facing page 232, illustrating the area bought in 1869 for the erection of the new Infirmary, shows a narrow roadway called Lauriston Lane extending from Lauriston Place to give access at its lower or southern end to the Royal Edinburgh Hospital for Sick Children standing between the foot of the Lane and the Meadows. The purchase of the houses on the west side of the Lane and of the Children's Hospital was an essential part of the scheme of expansion.

In 1891, two of the buildings near the upper end of the Lane had already become the property of the Infirmary, one being leased to the Incorporated Edinburgh Dental Hospital and School, the other to the Royal College of Physicians of Edinburgh as premises for its research Laboratory, founded in 1887 (Plan, p. 280). The Dental Hospital had held a lease of its house since 1889, paying the managers an annual rent of £65 and agreeing to provide gratuitous dental service to the patients in the Infirmary who required such treatment. Foreseeing that it would become necessary to vacate these premises the directors of the Dental Hospital purchased, in 1892, for £4000, number 31 Chambers Street which, prior to the town-planning scheme in that district, had been one of the houses in Brown Square. The College of Physicians, who were paying £80 of rent, proceeded to negotiate for property in the immediate neighbourhood of Lauriston Lane but in 1895 bought for a sum of £7350 the old parochial buildings at the corner of Bristo Place and Forrest Road, the site still occupied by the Research Laboratory.

Lower down the Lane were two houses, numbered 11 and 12, occupied by the Juvenile or Junior School of George Watson's College for Boys, and at the foot of the Lane, number 13, was the Hospital for Sick Children already referred to. Negotiations were commenced therefore between the managers of the Infirmary and the governing bodies of both these Institutions with a view to acquiring the two properties. The directors of the Children's Hospital, although willing to entertain the proposal, were unable to find a suitable site on which to build their new hospital ; consequently, the managers

THE EXTENSION SITE ACQUIRED

faced with a difficulty did not continue at this stage separate negotiations for the purchase of the School. No agreement having been reached an alternative scheme of extension was then considered. This embraced the acquisition of the remaining houses in the upper part of Lauriston Lane, along with others in Lauriston Place facing the main thoroughfare, and the open ground extending to the tenements on the east side of Archibald Place. It was proposed to erect on this somewhat restricted area a combined medical and surgical pavilion and, in addition, to build a surgical pavilion on the part of the existing property of the Infirmary immediately to the west of the surgical house. Consideration was given at the same time to the expediency of removing the laundry to the country.

As the original scheme was unquestionably the more attractive, offering a more spacious site with greater possibilities of sunshine, negotiations fortunately carried to a successful conclusion were reopened in 1892 between the several bodies concerned. The previous difficulty in obtaining a suitable locality for the new Children's Hospital had in the meantime been overcome, as the governors of the Trades' Maiden Hospital had expressed their willingness to sell their school buildings in Rillbank Terrace on the south side of the Meadows. The price suggested was £17,500 of which sum the managers of the Infirmary agreed to pay £12,500 and the directors of the Children's Hospital the remaining £5000. The offer then made by the governors of George Watson's College to dispose of the Juvenile School in Lauriston Lane for £12,000, with right of entry on 1st October 1893, was at the same time accepted by the managers, and the whole scheme received the approval of the Court of Contributors at a meeting specially summoned to consider it.¹ Thus, for the third time in the history of the Royal Infirmary, the managers, when desirous of enlarging the hospital, approached the Company of Merchants of the City to enable them to carry out their purpose.²

In 1893, preparations were made to issue an appeal to the public for a sum of £100,000 to meet the expenditure upon

¹ Minute, Royal Infirmary, 4th April 1892.

² Chapters VI and XIII.

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the site, accommodation for approximately 200 beds, the new laundry and certain necessary alterations in some of the departments of the Infirmary. Arrangements were also made to hold a public meeting in the Music Hall to inaugurate the scheme. But on the eve of launching the appeal came the news of the financial crisis in Australia with the failure of the banks, involving serious loss to many Scottish investors. The time therefore was regarded as unpropitious and, in the circumstances, it was deemed more prudent to postpone any further action. Although for two years the appeal remained in abeyance, subscriptions continued to be received and in 1895 £14,000 had been raised. In the same year prospects became considerably brighter with the receipt of the welcome news that the Infirmary would benefit, at Whitsunday, 1896, by two large bequests, both unhampered by any conditions—£50,000 from the Right Hon. George Philip, 14th Earl of Moray, and £25,000 from Mr Peter Waddell of Leith. The greater part of these sums having been devoted to the complete cancellation of the debt incurred by the hospital through recent borrowing, the remainder, amounting to £32,000, was added to the building fund account and plans were prepared for a slightly modified scheme of extension.

Commencement was made with the construction of the new laundry on the site of the Dental Hospital and the Laboratory of the College of Physicians, a decision only reached after some discussion as to the advisability of building it adjacent to the hospital. While some were in favour of its erection in the grounds of the Infirmary, others held the view that it would be more appropriately placed in the country or handed over to one of the public laundries in the city. That there should have been a difference of opinion on this point is not without interest at the present time, as the same question again occupied the attention of the Board of Management in connection with a more recent scheme of extension.¹ When the final decision was made not to depart from the oldstanding arrangement, Sir Henry Littlejohn, the medical officer of health, objected on the ground that the laundry in the neighbourhood of

¹ Minutes, Royal Infirmary, March, April, 1932.

THE NEW LAUNDRY ERECTED

Lauriston Place was contrary to the first principles of public health and should be placed in the country where the soiled bed and body linen could be washed under the best sanitary conditions and the occupants of the houses in the vicinity of the Infirmary would thus be relieved of a source of great annoyance.¹ But the managers, although appreciating Sir Henry's public spirit, saw no adequate reason to alter their decision. It was essential that the part of the laundry work requiring immediate attention should be carried out on the premises; further, two laundries were an undesirable arrangement entailing additional cost and labour: moreover, the necessary mechanical power had already been introduced and could not be transferred elsewhere. There was no legal objection to the existing site and no nuisance was anticipated, as every care had been taken in planning the new building to provide good ventilation. The laundry was therefore built and was ready for occupation early in 1898. In its construction a division was made into two separate departments, the one for the laundry of the patients, the other for that of the nursing and domestic staff. Accommodation for thirty-one laundry maids was also provided on the upper floors, along with a dining room and bathrooms, care being taken that these rooms should not be situated immediately above the washing and ironing departments.

Good fortune once more came to the assistance of the Infirmary at this critical time. During 1896 plans were in preparation for two new pavilions, one mainly for the treatment of diseases peculiar to women to be erected on the sites of the former Hospital for Children and on that of the Juvenile School and, between these and the laundry, the second and smaller pavilion to accommodate patients suffering from diseases of the eye. But at this time the citizens of Edinburgh, considering how they might commemorate the Diamond Jubilee of Her Majesty Queen Victoria, resolved to raise a fund, nine-tenths of which were to be devoted to the erection of the pavilion for women at the Royal Infirmary and one-tenth to the Queen Victoria Jubilee Institute for

¹ Minute, Royal Infirmary, 3rd August 1896.

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Nurses. Thus the way was opened for a more complete realisation of the extension scheme, making it possible to include in it the construction of a third pavilion to provide a larger number of beds for patients with diseases of the ear and throat.

As the cost of the first pavilion was to be in part defrayed from this special fund, it was desirable that it should not only be known as the Diamond Jubilee Pavilion but that it should embody some architectural features to distinguish it from the other pavilions of the hospital. Although of greater length and more massive than its neighbours it was decided that the two terminal turrets on the south elevation should be made octagonal in shape instead of in the circular pattern which characterised those of the other buildings; and, in addition, it was proposed to introduce a stone slab into the balustrade protecting the central balcony on the south front outside the ward on the second floor, this stone to bear the following inscription:—

Dedicated to the glory of God and the healing of human suffering in commemoration of the sixtieth anniversary of the accession to the Throne of Her Most Gracious Majesty, Queen Victoria, the thank offering of many for great benefits bestowed upon the realm during her reign.

The distinction between the jubilee pavilion and the others was destined to be achieved in a much more striking fashion than that obtained by octagonal turrets and a commemoration stone. The new Infirmary for the most part had been constructed of grey stone excavated from the Hailes Quarry, on the western outskirts of the city situated between Slateford and Colinton, one of the several quarries around Edinburgh supplying stone for its buildings and for the paving of its streets. When informed by the architect that fresh excavations would be necessary at Hailes and that probably twelve months would elapse before sufficient stone was available for the construction of the pavilion, the managers decided that the best course to pursue was to use the red stone of the Corsehill and Corncockle quarries in Dumfriesshire and

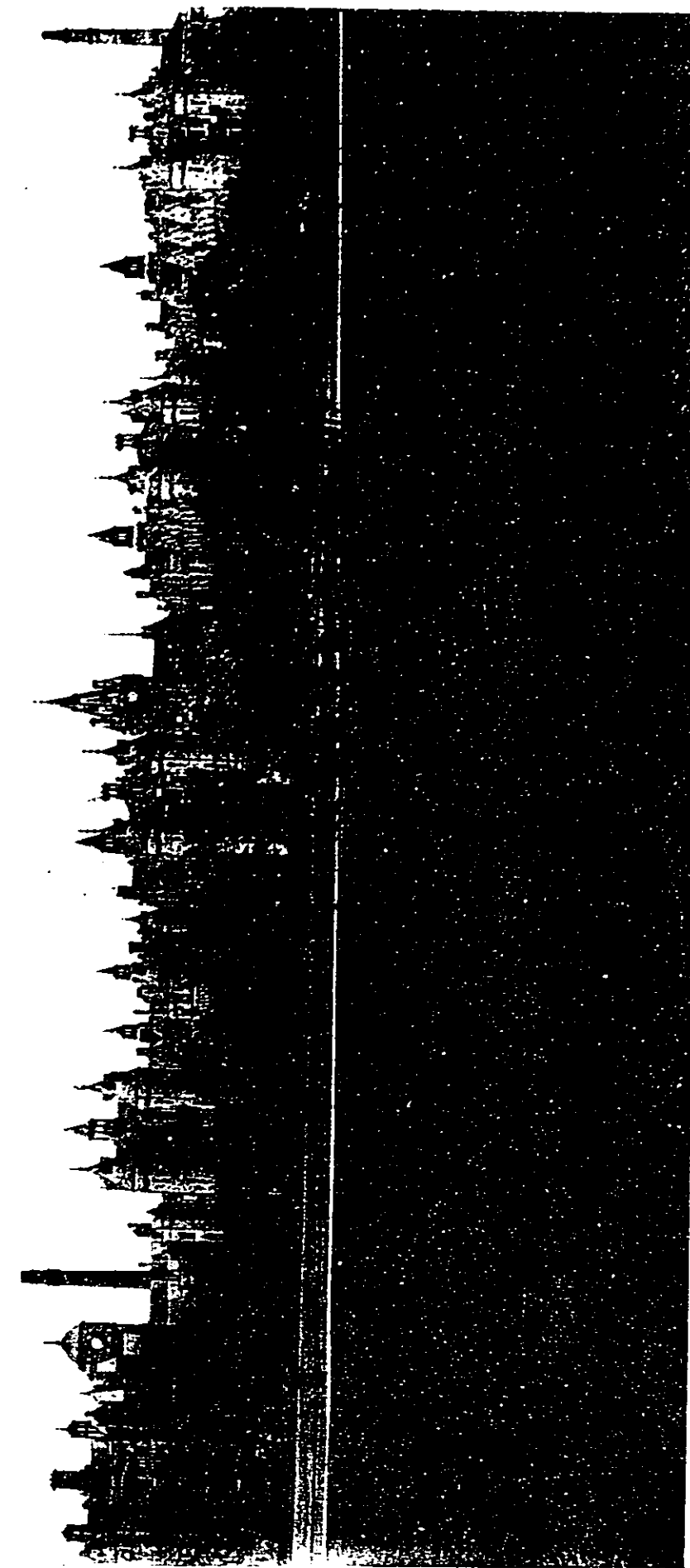


Photo by]
The Medical Pavilions of the New Royal Infirmary viewed from the Meadows, that on the left being the Diamond Jubilee Pavilion. On the extreme right is the tall chimney of the University New Buildings (Medical School)
[William Dickson, Edinburgh]

THE DIAMOND JUBILEE PAVILION

thus definitely distinguish the new pavilion from the others.¹ Force of circumstances, therefore, had compelled the erection of a building, the colouring of which was out of harmony with the rest of the Infirmary. On its completion the opening ceremony was performed by H.R.H. Princess Henry of Battenberg on 26th October 1900, the occasion being suitably commemorated on a mural tablet placed outside the entrance to the ward on the first floor of the pavilion.

The jubilee pavilion, like all the others, comprised a basement which contained the Baths Establishment, three main floors for wards, two reserved for the treatment of the diseases of women and the third as a male ward for ordinary medical cases, and in the attic storey separate rooms for nurses and servants. Each ward accommodated 26 patients, making a total of 78 in the pavilion. This arrangement remained in operation till 1922 when a third gynæcologist was appointed and the three wards, with the beds increased to 90, were devoted to the treatment of diseases of women. When this specialty first received recognition in the Royal Infirmary, on the appointment of James Young Simpson to the staff in 1850, the title of extra-physician for diseases peculiar to women was attached to the office. But just prior to the erection of the new pavilion, the managers, on the recommendation of the Fellows of the Royal College of Physicians, agreed to apply the designation of gynæcologist to those in charge of the department, the change being made in 1898 after it was agreed that Fellows of the Royal College of Surgeons should become eligible for these appointments.²

The financial assistance derived from the jubilee fund for the erection of the gynæcological pavilion, supplemented in 1898 by a handsome legacy of £38,822 from Mr James L. B. Yule, a citizen of Edinburgh, which the managers resolved to apply to the scheme, made it possible to proceed with the rest of the extension. Consequently, early in 1900, a commencement was made with the construction of the two smaller pavilions on the vacant ground between the Juvenile School

¹ Minutes, Royal Infirmary, 10th, 17th, 24th January 1898.

² Minute, Royal Infirmary, 20th December 1897.

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and the laundry. Both were built of the grey stone from Hailes Quarry and were ready for occupation in 1903. The larger of the two appropriated for diseases of the eye gave accommodation for 44 beds and the smaller for diseases of the ear and throat made provision for 28 patients.¹ Each formed a complete unit providing in addition to the wards an out-patient and teaching department.² And so this extension scheme, initiated in 1891, had been steadfastly pursued to a successful termination after twelve years of varying fortune and in spite of frustrated hopes and delays from quite unexpected causes. Its completion terminated the labours of the committee which, under the sub-convenership of Professor John Rankine, had borne the burden and heat of the day. Sir John was Professor of Scots Law in the University of Edinburgh from 1888 to 1922, and a member of the Board of Management of the Infirmary continuously for thirty-three and a half years, 1889-1922, on which he represented alternately the Senatus Academicus and the Faculty of Advocates. His professional advice was of great value to the Law Committee of the Board on many occasions, he was its convener for twenty-seven years and, as sub-convener of the Extension Committee, he handled difficult situations with tact and circumspection.

In the subjoined table the receipts and expenditure in connection with the extension scheme are briefly recorded.

A. Receipts.

Donations	£34,966
Transferences from Extraordinary Account	41,601
Legacies applied to Building Fund	59,673
Interest, Rents, Income Tax returned, miscellaneous	6,401
Balance Royal Bank on account of Fund	1,642
	<u>£144,286</u>

¹ In 1926, two new wards were added to the ear and throat pavilion containing 31 beds, thus making 59 beds in the department.

² The large eye ward vacated in the Surgical House was not again occupied by patients till 1907 when it became, along with the new Ward 1, the enlarged department for diseases of the skin.

INTERNAL IMPROVEMENTS EFFECTED

B. Expenditure.

Sites, Lauriston Lane Houses and Children's Hospital	31,886
New Laundry	16,320
Diamond Jubilee Pavilion	40,808
Eye, Ear and Throat Pavilions	48,818
Drainage, connecting corridors, grounds, etc.	6,441
	<u>£144,286</u>

Note.—The totals are expressed in round numbers, thus explaining the apparent error in calculating the total amounts. The sum received from the Jubilee Fund, included under donations, was £17,638. The Red Home for Nurses was a separate scheme and is therefore not included in the statement.

The large scheme of extension was not the only project with which the managers were then concerned. Although the Infirmary buildings were of comparatively recent date and in the 'nineties might reasonably be regarded as modern, the rapid advances in science compelled the introduction of improvements which could not be withheld. In 1897, it was deemed highly expedient to replace the old system of lighting with gas by a complete installation of electric illumination. This necessitated wiring of all the pavilions and the substitution of the original 2690 gas burners with the requisite number of electric lamps, entailing an expenditure of £5500. At the same time the opportunity was taken to introduce the system of telephonic communication throughout the hospital which, ten years later in an amended form, was placed under the control of the National Telephone Company. A new boiler-house and plant for heating of the most approved type were introduced, and a taller chimney erected to obviate the smoke-nuisance complained of by the neighbours. A kitchen to meet the needs of the enlarged hospital was also necessary, a reconstruction which incidentally terminated the long series of Kitchen Concerts, popularly known as the "K.C.," and conducted annually by the resident physicians and surgeons.¹ When it became obvious that the life of these concerts would be threatened by the inevitable

¹ Minute, Royal Infirmary, 26th October 1896, "permission granted to the Residents to hold the K.C. on 18th December." Minute, 23rd August 1897, "request to hold the K.C. declined."

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changes in the kitchen that were forecasted, the decision was made to found the Edinburgh Royal Infirmary Residents' Club to carry on the traditional reunion of past and present residents by holding an annual dinner in Edinburgh.¹ But perhaps the most important and certainly the most costly improvement then carried out was the new system of plumbing and drainage, as that originally introduced had become obsolete. This extensive work commenced in 1900-01, but not completed till 1908, involved an extraordinary expenditure of £34,000.

Reorganisation of the Surgical Out-patient Department was first considered in 1895, if the term department can be appropriately applied to the arrangements then in operation in the Infirmary for the attendance upon the surgical out-patients. In the early days of the new hospital, a reception room at the entrance to the surgical house provided accommodation for the preliminary examination of casualties and for such minor treatment as was deemed necessary, if the injury or ailment did not require treatment in the wards. But during the recognised visiting hours of the surgeons the majority of the out-patients proceeded to the wards of the surgeon on duty for the day, where they were examined and treated in accommodation which left much to be desired. The system was not satisfactory either in the interests of the patients or of the students of medicine, who were denied opportunities of obtaining useful experience in the treatment of the lesser surgical ailments which constitute a considerable part of daily professional work.

The alterations in the out-patient department included the provision of a large waiting-room obtained by reconstructing what had been the original casualty ward on the first floor of the north-east surgical pavilion, the ward handed over in 1883 to the professor of clinical surgery as part of his surgical charge when the lifts in the hospital first came into operation.² In addition, a series of small rooms was converted into "dressing rooms" for the treatment of wounds, and the whole department was supervised each day by the assistant surgeon attached

¹ The first dinner of the Club was held on 3rd May 1895. ² Chapter xv, p. 276.

THE MEDICAL ELECTRICAL DEPARTMENT

to the surgeon on duty. Such an arrangement, although effecting some improvement, could scarcely give complete satisfaction; consequently, in 1904, a large committee of the managers were appointed to discuss with the staff a new plan for the conduct of the department. Following their deliberations a small theatre was built for the treatment of patients and the instruction of students, a casualty ward was again attached to the department and more dressing-room accommodation was provided. Three resident house surgeons were appointed, along with the requisite number of nurses and porters. The care of the out-patients was entrusted to the two junior assistant surgeons alternately for periods of six months at a time, while the clinical teaching was carried out by the assistant surgeon attached to the surgeon on duty for the day. This arrangement permitted of a more prompt and efficient service. Some years later (1921) the whole service of the department, examination, treatment and clinical teaching, was placed in the hands of the two junior assistant surgeons; and, as recently as 1936, a casualty ward of six beds was opened for the temporary accommodation of patients whose condition was not deemed of such a nature as to require admission to the general wards; and for patients operated upon by the surgeons in charge, when their immediate return home was not considered advisable.

Specialisation, however, continued to make still further demands upon the resources of the Infirmary. The employment of electricity as an aid in the diagnosis and treatment of disease and injury was becoming of increasing importance and, after the installation of the electric current throughout the hospital, the establishment of a Medical Electrical Department could not be delayed. The period coincided also with two remarkable discoveries which were soon to revolutionise medical practice in two particular directions. In 1895, Professor Röntgen had discovered that certain radioactive electrical waves, invisible to the eye—named the X-rays—could penetrate opaque substances impervious to ordinary light and affect sensitive photographic plates. In the following

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year Henri Becquerel announced that the emission of similar radio-active rays was produced from the metal uranium, and, in 1898, the investigations of Monsieur and Madame Curie led to the discovery of other substances with precisely similar properties, with varying degrees of penetration, amongst which was the element to which they gave the name of Radium.

The arrangement and equipment of the Medical Electrical Department were intrusted to Robert Milne Murray who, in November 1896, was appointed Medical Electrician to the Infirmary. As physician to the Edinburgh Royal Maternity and Simpson Memorial Hospital and as lecturer in midwifery and gynæcology in the extra-academical school he had mapped out his professional career as a specialist in these two branches of medicine; and in accepting this new office he made the proviso that his chances of election to the post of assistant gynæcologist to the Infirmary, when such became vacant, should not be jeopardised. A man with many interests, a lover of the Arts, with a fine appreciative sense of the value of old prints, a musician, a chemist, mineralogist and geologist, Milne Murray had added the study of electricity to his other pursuits, and his intimate knowledge of the subject as a science and in its application to medicine eminently fitted him to take charge of the new department.¹ Dawson Fyers Duckworth Turner, lecturer in physics at Surgeons' Hall, was at the same time appointed assistant medical electrician. He early recognised the importance of the X-rays in their application to medicine and the possibilities inherent in radium as a remedial agent and, having purchased a small quantity of that element, he generously placed it at the disposal of the Infirmary.

The very limited accommodation available for the electrical department was found beneath the operating theatre of the professor of clinical surgery. The old splint room and the plumber's workshop were ingeniously converted into four small rooms, two of which were used as examination rooms and for the calibration of the electrical instruments, while the

¹ Robert Milne Murray was elected assistant gynæcologist to the Infirmary in 1901; he died in 1904 at the early age of 49 years.

TWENTY-FIVE YEARS OF EXPANSION

X-ray diagnostic room—the only use then made of the Röntgen rays—and the photographic development room were placed in the basement beneath, reached by an ill-lit and precipitous staircase. The necessary equipment and apparatus were installed for the modest sum of £500; and these cramped and dingy quarters were made the temporary home of a young department which was to become, a few years later, of increasing usefulness and importance as an aid in the diagnosis and treatment of disease and injury. Better accommodation was soon a matter of urgency and, in 1903-04, the whole of the basement of the south-east surgical pavilion in which were the residential quarters of the Steward and the Dispenser, was reconstructed and adapted for its new purpose.¹ There the work was carried on for twenty-two years, often under difficulties as it continued to increase, till the new Radiological Department, built and equipped at a cost of nearly £50,000, was opened in 1926.

The events narrated in this and the previous chapter carry the story of the Infirmary to the close of the first quarter of a century of its life in Lauriston Place. The occasion seems suitable to review very briefly the course of events during those twenty-five years, and the appended table will show at a glance its remarkable capability of expansion and its extended sphere of usefulness.

Number of Beds and Patients Treated.	1879-80.	1903-04.
Beds in the Infirmary	555	850
Patients treated in the wards	5,315	11,125
Average daily number in wards	469	810
Highest number on one day	525	852
Out-patients treated	15,000	33,412
Ordinary Income	£21,541	£33,814
Ordinary Expenditure	£27,818	£49,808

Then as now, ordinary expenditure exceeded ordinary income.

¹ After this date these two officials no longer lived in the Infirmary.

THE NEW ROYAL INFIRMARY, 1890-1904

Through the kindness of a friend of the hospital the two scriptural texts which for so many years had been inscribed on the front elevation of the old Infirmary were carved upon the stone above the main doorway of the new, "I was a stranger and ye took me in," "I was sick and ye visited me"; and between these two inscriptions was engraved the Pelican, part of the crest of the Royal Infirmary and beneath it the motto, "Patet Omnibus." In addition, two dates are recorded, 1730 : 1879. The first has no special significance in the history of the Infirmary and, in all probability, should be 1729, the year of the foundation of the hospital; 1879 commemorates the year of the opening of the present building.

CHAPTER XVII

THE ROYAL INFIRMARY IN THE TWENTIETH CENTURY—THE YEARS BEFORE THE WAR

1900-1914

APPOINTMENTS OF OFFICIALS, THE SUPERINTENDENT AND THE LADY SUPERINTENDENT—INTRODUCTION OF THE AGE-LIMIT OF SERVICE OF THE MEDICAL AND SURGICAL STAFF—THE CLINICAL TEACHING AGREEMENTS OF 1913 AND 1929—CHANGES IN THE MEDICAL AND SURGICAL STAFF.

THE passing of the years brought changes in due course in the personnel of the Infirmary and, very early in the century, death or retirement on account of age released certain of the officials of the hospital from their labours. Following the death of Surgeon-General Fasson in 1892,¹ a successor as Superintendent had been found in Surgeon-Major-General Stewart A. Lithgow, C.B., D.S.O., M.D., Army Medical Service, then stationed at Portsmouth as Principal Medical Officer to the Southern District. He had joined the army in 1855 as surgeon with the 75th Regiment and, during thirty-eight years many of them spent on active service at the Cape, in India during the Mutiny and in Egypt, he had held both at home and abroad several administrative posts which had qualified him for his new appointment. But his tenure of the office of Superintendent was brief: he died when on leave in the autumn of 1899, without seeing the completion of the large extension scheme which had occupied so much of his attention and time during the eight years of residence in the Infirmary. Colonel William P. Warburton, C.S.I., M.D., who had recently retired from the Indian Medical Service, was selected as his successor. Like his predecessor he was a graduate of Edinburgh, one with very considerable administrative experience gained in India as Medical Officer to the Native State of Kapurthala and in the more responsible

¹ Chapter xvi, p. 280.