

purpose till 1932, when the department was transferred to the King's Buildings on the eastern slope of the Blackford Hill. The High School was then refitted for the Department of Geography. In 1906, the Department of Natural Philosophy was installed in what had once been the New Surgical Hospital, and old Surgeons' Hall became the Headquarters of the University Officers' Training Corps.

The future story of this historic area of the city has still to be told and, whatever the story may be, the fact remains that for more than three and a half centuries this part of old Edinburgh has continued uninterruptedly to minister to the educational needs of successive generations of youthful citizens. It has more than fulfilled the purpose desired by the Town Council of 1561 that the property once owned by the Black Friars and confiscated at the Reformation "should be applyit to mair proffitable and godlie ussis sic as for sustenyng of the trew ministeris of Goddis word, founding and biging of hospitalis for the pure and Collegis for leirnyng and upbringing of the youth and sic other godlie warkis."¹

¹ See Chapter VI, p. 78.

CHAPTER XIV

THE LAST DECADE IN THE OLD ROYAL INFIRMARY
1870 to 1879

JOSEPH LISTER AND THE REGIUS CHAIR OF CLINICAL SURGERY—
MEDICAL EDUCATION OF WOMEN IN THE ROYAL INFIRMARY—PLANS
FOR THE CONSTRUCTION OF THE NEW ROYAL INFIRMARY—THE
OPENING CEREMONY.

WHEN James Syme resigned the chair of clinical surgery in the summer of 1869 Joseph Lister was elected his successor and, in a letter to the managers of the Royal Infirmary dated 25th August, he wrote as follows:—"Having been appointed Professor of Clinical Surgery in the University of Edinburgh I beg to express the hope that you will provide me with the means of giving my lectures in connection with the Infirmary. It is hardly necessary to say that, if you honour me with your confidence, the interests of the patients committed to my charge will be the primary object of my attention." At the same meeting of the Board a letter was read from James Spence, professor of systematic surgery, whose term of office as an acting surgeon of the hospital was about to expire. In it he solicited an extension of his period of service as the charge of beds would enable him to make the teaching of the chair more in accordance with the system of instruction then recognised as desirable. An affirmative answer was given to both these applications, but, as the managers were considering a rearrangement of the whole surgical department, the allocation of the beds was not communicated to the two professors till 4th October.

At that date the Old and the New Surgical Hospitals contained 190 beds available amongst five surgeons, the three acting or ordinary surgeons and the two professors of surgery. Of the 77 beds in the Old Surgical Hospital 50 were allotted

THE LAST DECADE IN OLD ROYAL INFIRMARY

to Joseph Lister and 20 to the third or junior surgeon : the remaining 7 beds in two reserved wards were retained for the use of the whole surgical staff and were only to be occupied with the consent of the managers. In the New Surgical Hospital 113 beds were allocated in the following way :— 50 to the senior acting surgeon, 35 to the second surgeon and the remaining 28 to James Spence. Thus with 50 beds Lister commenced his work as surgeon in the old High School building in which his predecessor in the chair had laboured for thirty-six years.

Lister had many friends in the city who gave him a cordial welcome ; he was not a stranger to Edinburgh because, in the autumn of 1853, on the completion of his medical studies at University College, London, he had travelled north to the Scottish capital. His intention had been to stay for one month ; but the month was prolonged to six months and the six months to nearly seven years, so unrivalled were the opportunities offered him for work in the school of medicine and in the Royal Infirmary : as supplementary clerk and house surgeon with Syme ; as an extra-academical lecturer in surgery at High School Yards ; as assistant surgeon to the hospital in 1856—in which year he married James Syme's daughter—the long period terminating in the spring of 1860 with his appointment to the regius chair of surgery in the University of Glasgow. Throughout the whole of that time he had worked indefatigably, investigating the phenomena of the early stages of inflammation and the microscopical changes associated with the coagulation of the blood, his mind constantly dwelling on the problem of the origin of inflammation in wounds and of those distressing complications which were the source of the shocking mortality in hospitals after operation and injury.

During his absence of nine years in Glasgow the staff of the Royal Infirmary had undergone several changes : a few of his former colleagues remained to receive him, but a number had left and their places were occupied by less familiar faces. Hughes Bennett, Thomas Laycock and Sir James Young Simpson were still clinical professors and his colleagues on



JOSEPH LISTER

Photograph taken during his first period of residence in Edinburgh, 1853-1860

LISTER'S COLLEAGUES IN EDINBURGH

the Senatus.¹ None of the ordinary physicians of 1860 remained : of these, William Tennant Gairdner had been appointed professor of medicine at Glasgow where he and Lister had been colleagues in the University. The three physicians were Daniel Rutherford Haldane, George W. Balfour and Thomas Grainger Stewart, while Claud Muirhead and Thomas Richard Fraser had just been appointed to the newly created assistant physicianships. William Walker was still ophthalmic surgeon but Douglas Argyll Robertson had been elected in 1862 to assist him in the eye department. James Matthews Duncan, who became Lister's life-long friend, was acting as an extra-physician for the diseases peculiar to women. Of the former surgical staff, John Struthers had gone to Aberdeen as professor of anatomy, but James Spence as professor of surgery and James Donaldson Gillespie, as the senior acting surgeon, remained. The two junior acting surgeons were Patrick Heron Watson and Thomas Annandale, the latter afterwards Lister's successor in the clinical chair, and the two assistant surgeons, recently appointed, were Joseph Bell and John Duncan.

The years of Lister's professorship in Glasgow had been pregnant with the discovery of a great scientific truth : Louis Pasteur, as the result of careful observation and experiment had demonstrated conclusively, in 1864, that fermentation and putrefaction were vital phenomena due to the action of micro-organisms everywhere present in the atmosphere. He thus laid the foundation of the Germ Theory on which Lister proceeded to build his conception of the antiseptic or anti-putrefactive treatment of wounds, the essential basis of which was the destruction of the minute organisms that had already obtained access to the wound, and their subsequent exclusion during the process of healing. He effected a complete revolution in surgical practice and by so doing he destroyed the active factors in the causation of putrefaction and of those frequently occurring and often fatal complications, pyæmia,

¹ Douglas Maclagan elected professor of forensic medicine in 1862 and William Rutherford Sanders appointed to the chair of pathology in 1869 were also clinical professors in the Royal Infirmary at this date.

THE LAST DECADE IN OLD ROYAL INFIRMARY

erysipelas and hospital gangrene. Writing in 1867 regarding the state of his wards in Glasgow Royal Infirmary, following his early efforts to banish the deplorable conditions which were then the rule and not the exception in hospital practice, he said: "Since the antiseptic treatment has been brought into full operation, and wounds and abscesses no longer poison the atmosphere with putrid exhalations, my wards, though in other respects under precisely the same circumstances as before, have completely changed their character; so that during the last nine months not a single instance of pyæmia, hospital gangrene or erysipelas has occurred in them."¹ The following impressions of one of his students in Edinburgh are thus recorded:—

I can well remember with what excitement we crowded into the operating theatre in the Old Infirmary, young lads of 17 and 18, fired by the rumours of what we had heard of dashing operations—disarticulations of the hip in ten seconds with oceans of blood and marvels of dexterity—to be met by a modest, shy, retiring figure with lisping utterance, and with nothing before him except a dozen glass bulbs filled with beef-tea, urine, and milk, on the aseptic qualities of which he discoursed in a quiet unobtrusive way. I must confess that it all came as a shock of disappointment. It was all too like the chemical lecture through which we had yawned in the morning, and we could not but feel that we were being defrauded. No doubt we were only silly boys, but what could you expect? We had had no previous experience to guide us, we had not seen epidemics of pyæmia decimating whole wards, and it was thus impossible for us to grasp the magnitude and importance of his discoveries. Even when it did come to operations, the comparison with the other surgeons of the day was not flattering. There was no dash or brilliancy, but slow methodical plodding, the immediate results covered by carbolic putty and obscured by clouds of antiseptic spray, while as to the immediate results, though we heard that they were wonderful, we knew too little to appreciate at their true value their import or magnitude.²

In the old Surgical Hospital in the High School Yards Lister, on his return to Edinburgh, continued his beneficent work improving and simplifying the technic of his antiseptic

¹ *British Medical Journal*, 1867, vol. ii, p. 246.

² *Edinburgh Medical Journal*, vol. ix, 1912. "Some Memories of Old Harveians," by C. W. MacGillivray, M.D.

LISTER RESIGNS HIS APPOINTMENTS

methods; and, after six years, he was able to record that during that period hospital gangrene had been banished from his wards, only one case on which he had operated had developed pyæmia, and erysipelas had been a very rare occurrence. Owing to the great demand made on his beds he had felt justified in accommodating as many as seventy patients by means of extra beds and "shake-downs," so that there were rarely as few patients in the wards as the hospital regulations permitted, while the annual cleaning of the wards, previously a necessary procedure in the Infirmary, was postponed during an interval of three years.¹ Moreover, surgery was no longer being confined to the major operations of the pre-Listerian days. Although attempts had been made from time to time to extend the boundaries of the surgeon's endeavour, sometimes with success but as a rule with uncertain results, the field soon became definitely extended and no part of the human body was regarded as outside the province of the surgeon. But Lister did more than bring security to the practice of surgery; he laid the foundation of hygiene and preventive medicine.

Notwithstanding the successful results which he obtained and which spoke for themselves, Lister did not escape the opposition and hostile criticism of some of his colleagues in Edinburgh; but nowhere was this feeling so pronounced as in London. Consequently, in 1877, when the chair of clinical surgery at King's College, London, became vacant through the death of Sir William Fergusson, Lister accepted the invitation extended to him. He was convinced that he still had a mission to perform and that "the importance of converting the greatest centre of learning and education in England justified almost any sacrifice." So, after twenty-four years' residence in Scotland, he left the Royal Infirmary which he loved, his large classes of enthusiastic students and his many friends and colleagues in the northern city. Preparatory to his departure in the autumn he wrote to the Board of Management on 1st August: "As my attendance at the Infirmary must for the future be at the best very irregular I beg now to

¹ *British Medical Journal*, 1875, vol. ii, p. 769.

THE LAST DECADE IN OLD ROYAL INFIRMARY

resign the position of surgeon which I hold from you, and at the same time to express my sense of the forbearance and kindness on your part which have accompanied my tenure of office." Lister took with him to London four men to form the nucleus of his staff at King's College Hospital, William Watson Cheyne as his house surgeon and John Stewart as his clerk, along with two still unqualified students of medicine, William Henry Dobie and James Altham, as dressers.

Edinburgh, conscious of its loss, bade farewell to a dignified and charming personality, to a man gentle and unassuming, always courteous and kind; never disheartened, or with his serenity disturbed by temporary failures, but, "with faultless patience his unyielding will" pressed on by steady determination and perseverance to the goal he had set before him. He died on 12th February 1912. A general desire was expressed that he should be interred in Westminster Abbey, but, in fulfilment of his wish that he should be buried by the side of his wife, his remains were laid in West Hampstead Cemetery after a great public funeral service in the Abbey. There, a marble medallion placed in the north transept recalls the features and the name of Lord Lister.

The lively discussions and controversies, the actions in the Court of Session, and the keen public interest which characterised the early struggle for the admission of women to the study of medicine in the University of Edinburgh, on the same terms and under the same conditions as male students, are now matters of ancient history. It has been told elsewhere in considerable detail;¹ but the Royal Infirmary, then the only hospital in the city capable of giving the women the clinical instruction necessary for qualification, provided during the 'seventies of last century a stage on which some of the early encounters took place.

In the person of Miss Sophia Jex-Blake, a young English lady born in Hastings in 1840, the movement had a protagonist who was not deterred by serious opposition or by initial failure. In the spring of 1869, previously foiled in her attempt to

¹ *The Life of Sophia Jex-Blake*, by Margaret Todd, M.D. Macmillan & Co., London 1918.

MEDICAL EDUCATION OF WOMEN

gain entry to the Harvard Medical School at Cambridge, Massachusetts, she came to Edinburgh to explore the possibilities of obtaining instruction in its University. It was not her first experience of gauging public feeling in the city on this question, because in 1862, when attending the University classes for the Higher Education of Women held in Shandwick Place, she had, along with Miss Elizabeth Garrett, already tested opinion as to the prospects of obtaining a university degree in medicine. And now, in 1869, notwithstanding a reception more hostile than friendly, she reopened a campaign which, if it did not realise all her expectations, at least met with a certain degree of success.

In the spring of that year the University Court were not prepared to make temporary arrangements in the interests of one lady, or to adjudicate finally on the question of the admission of women, and accordingly recalled the favourable resolution previously passed by the Senatus. In her second attempt during the summer she appealed on behalf of herself and her fellow students for instruction in separate classes. The Senatus Academicus having then decided by a majority to admit women to the study of medicine in the University, resolved that they should receive instruction in classes confined entirely to them, but only from such professors as were willing to teach them, or from extra-academical lecturers whose courses were recognised by the University as qualifying for the degree in medicine. The University Court approved the decision of the Senate which, on 29th October 1869, was homologated by the General Council. Thus in theory, if not in actual practice, admission was gained to classes within the University.

The privilege then conceded had its repercussions in the Infirmary, as clinical instruction was essential for a complete medical education. In the hospital the gradual development of the movement may be appropriately, if briefly, considered in the three phases which distinguished it: the first short, initial period from 1870-73, the second phase consequent upon the powers granted to the Scottish Universities by the Universities (Scotland) Act, 1889, to confer medical degrees on women,

THE LAST DECADE IN OLD ROYAL INFIRMARY

and the third and final phase, in 1916-17, when during the War women were admitted to all the classes in the University in conditions similar to those open to graduation for men.

Careful perusal of the minutes of the Infirmary, however, reveal that, prior to the advent of Miss Jex-Blake, two fortuitous applications—both unsuccessful—had been made by women to obtain instruction in the wards of the hospital. In 1854, Miss Emily Blackwell, a naturalised American and a pioneer in the feminist movement, asked permission to visit the female wards during her temporary residence in Edinburgh, a request which was refused by the Board on the advice of the medical managers' committee.¹ Again, in 1862 the managers received a letter in the following terms from Miss Elizabeth Garrett : ²—

I purpose studying medicine with a view to practising as a physician to women and children. As any theoretic instruction I may be able to obtain will be comparatively useless unless I can, at the same time, share the facilities offered to other students for the practical study of disease, I beg respectfully to request your permission to visit the female wards of the infirmary with any of the physicians and surgeons of the hospital who may invite me to do so.

After consultation with the medical officers this proposal was also rejected as it was considered "inexpedient to grant her request in the circumstances of the hospital." What these circumstances were is not recorded.

In the autumn of 1870, following upon the decision of the University Court above related, Sophia Jex-Blake and her seven companions desiring clinical instruction knocked at the portals of the Royal Infirmary ; but their request met with a definite yet courteous refusal.³ The hospital with the crest bearing the motto "Patet omnibus" remained closed to this small but determined band of women students. But in spite of this rebuff

¹ Minute, Royal Infirmary, 12th June 1854. Miss Emily Blackwell and her sister Elizabeth afterwards opened a Medical School for Women in New York.

² Minutes, Royal Infirmary, 16th and 23rd June 1862. Miss Garrett, by marriage Mrs Garrett Anderson, qualified to practise medicine in 1865 by obtaining the licence of the Society of Apothecaries. She became lecturer in medicine and Dean of the London School of Medicine for Women. She was the mother of Dr Louisa Garrett Anderson, C.B.E.

³ Minute, Royal Infirmary, 31st October 1870.

INSTRUCTION IN INFIRMARY OPPOSED

the struggle was maintained for two years before a final settlement was reached. During that period both professional and public opinion was divided on the question of recognising their claims. A petition signed by 1326 women in favour of the admission of their sex was presented to the managers, but another, with 1200 female signatures, expressed the opposite opinion : further evidence of the public interest in the question was seen in the large attendance at the annual meeting of the Court of Contributors in January 1871, when 443 votes were recorded in the ballot for election of six representatives to the Board of Management, certain of the candidates being in favour of, others adverse to, the admission of women students.

Sixteen of the nineteen members of the medical and surgical staff of the hospital opposed the movement. But the main issue in the controversy, in the event of entry being granted, centred in the question of the instruction of women in separate or mixed classes. The former would involve a considerable reduction in the number of beds—already insufficient—available for the teaching of male students, as the regulations were such that a qualifying course of clinical instruction must be given in a general hospital containing not less than eighty beds. Consequently by withdrawing eighty beds for this special purpose, the efficiency of the Infirmary as a teaching centre for a large number of male students would be greatly impaired. If, on the other hand, both sexes were taught daily in the same wards, but at different hours, it would expose the patients to the risk of being used for teaching purposes twice daily, an unnecessary hardship which the managers were not prepared to countenance. Some of the staff held the opinion that the only solution of the difficulty would be found in the establishment of a separate hospital for women.

Amongst the lecturers in the extra-academical school who were giving the women systematic courses, the opposition to mixed classes was not unanimous. Thus at Surgeons' Square Peter David Handyside and Patrick Heron Watson taught respectively anatomy and surgery to men and women together, and George William Balfour had admitted both sexes to his class of systematic medicine. Heron Watson and Balfour, both

THE LAST DECADE IN OLD ROYAL INFIRMARY

members of the staff of the Infirmary, signified their willingness to open their wards to the women students. But the staff as a whole were obdurate and for many months the door remained closed in spite of the continuous pressure from without. It finally yielded, however, on 23rd December 1872, when, on the motion of Professor David Masson, a member of the Board and a zealous supporter of the claims of the women, it was agreed "that the Managers of the Infirmary admit the Females already matriculated in the University and enrolled on the Students' Register of Scotland, to receive clinical instruction at a separate hour from that at which Male Students are admitted into the hospital, and in a stated number of wards, containing not less than 80 beds, to which Female Students must confine their visits." This was accepted as a temporary measure carrying no underlying implication that the privilege would be extended *in perpetuo*. Accordingly arrangements were made with George W. Balfour and Patrick Heron Watson, the former to teach clinical medicine on three days in the week, the latter reserving the hour of eleven to noon on Sunday for surgical instruction. When, later, objection was taken to his selection of the hour of Divine Service, Heron Watson substituted nine o'clock on Sunday morning and, being a busy man, refused any further modification of his plans.¹

Although entry to the Infirmary had at last been obtained, the restrictions imposed were of such a nature as to make it extremely doubtful if the women were obtaining the instruction laid down by the regulations as qualifying for the examinations licensing them to practise. No opportunities were being given to them to attend the *post-mortem* room, to see major surgical operations, or to act as clerks and dressers, nor was there any attendance on clinical lectures. They therefore petitioned the managers to be allowed to occupy the gallery of the operating theatre and, thus secluded, to attain the second of these objectives. But the request was refused, Sir Robert Christison, always a strenuous opponent of the women's movement, carrying his amendment to the motion at a meeting of the Board.² Complaints were made that Heron Watson's ward

¹ Minute, Royal Infirmary, 3rd March 1873.

² *Ibid.*, 8th December 1873.

WOMEN BECOME QUALIFIED TO PRACTISE

visits on Sunday were not being strictly reserved for the one sex, as his male clerks and dressers attended for the purpose of dressing the wounds of the patients, thus establishing a mixed class, contrary to the intention of the managers and to the expressed wish of the contributors; but on this point Heron Watson was not prepared to yield. Thus terminated the first phase which, although it settled the principle of the admission of women to the Infirmary, must have given but a qualified measure of satisfaction, in view of the incomplete course of training which it implied.

Nearly twenty years were to elapse before the stage of the Royal Infirmary was set for the second phase of the drama. During the interval considerable progress had been made in the recognition of the claims of women for equality of treatment and, throughout the whole of that period, Miss Jex-Blake continued in the van of the movement. Transferring the scene of her operations to London she was successful in founding a separate school of medicine for women with an efficient staff of lecturers and, in 1877, the Royal Free Hospital opened its doors for clinical instruction. The Medical Act, 1876—the Russell-Gurney Enabling Act—extended the powers of the licensing bodies to grant qualifications for registration to all persons, irrespective of sex, and in 1878 the Senate of the University of London resolved to admit women to medical examination and degree. In the following year, having previously graduated M.D. Berne, and armed with a legal title to practise in Great Britain as a Licentiate of the King's and Queen's College of Physicians in Ireland, Miss Jex-Blake returned to Edinburgh where she opened her dispensary, the nucleus of the future Edinburgh Hospital for Women and Children. In 1886, the Royal Colleges of Physicians and Surgeons of Edinburgh having resolved to admit women to the examination for the joint qualification, the Edinburgh School of Medicine for Women was created by her, and Leith Hospital, founded in 1848, opened its wards for the clinical instruction of women students.

When the Universities (Scotland) Act, 1889, granted powers to the Commissioners to enable each of the four

THE LAST DECADE IN OLD ROYAL INFIRMARY

Scottish Universities to admit women to graduation in one or more faculties and to provide for their instruction, the second phase commenced, the managers of the Royal Infirmary, in July 1890, receiving from the recently established Association for the Medical Education of Women an application for their instruction within the hospital. Thus the former controversy was reopened proceeding along lines very similar to those of twenty years previously. Some of the old campaigners had passed away, but a few still remained to fight another battle. The same arguments were again employed, such as the objection to mixed classes, and the reduction in numbers of clinical cases available for the male students—of whom 2044 had in that year matriculated in medicine in the University—if eighty beds should be allocated for the instruction of twelve female students. But the conditions had changed in twenty years: the principle of admitting women to the Infirmary had already been accepted, and the licensing bodies had recognised their right to sit the examinations and to receive qualifications; moreover, the large new Infirmary offered facilities which the old Infirmary had been unable to provide, and the visiting medical and surgical staff had increased in numbers. Both public and professional opinion on this much vexed question was undergoing a salutary change.

The managers, who were then considering further extensions of the hospital and were desirous of enlisting the sympathy and financial support of all shades of public opinion, recommended, on 2nd February 1891, that the women should be admitted and taught in separate classes, an exception, however, being made in the case of certain of the special subjects, should the teachers in these subjects decide in favour of mixed classes. But opposition continued to be offered by some of the die-hards of the medical and surgical staff and by the faculty of medicine, and progress was withheld till the following summer. In the intervening months adverse opinion had certainly weakened and at a conference of the managers and the staff held on 11th July 1892 it was evident that the tide had turned in favour of the women, and, when the winter session opened in October, arrangements had been completed

UNIVERSITY ADMITS WOMEN TO GRADUATION

for their instruction. The objection to mixed classes, a barrier which at one time seemed insurmountable, had been overcome by negotiating special arrangements. Two wards were reserved for surgical and medical instruction in separate classes and placed in the charge of the senior assistant physician and senior assistant surgeon, and the women were appointed clerks and dressers. Special clinics were held by the assistant physicians for separate instruction on medical out-patients; and facilities were provided in the wards for diseases of women, in the female Lock ward and at *post-mortem* examinations. Mixed classes, on the other hand, were held in the departments for diseases of the eye, the ear and throat and diseases of the skin.¹

In the meantime Ordinance No. 18—General No. 9 of the Commissioners, regulating the graduation of women and providing for their instruction in the faculty of medicine and other faculties of the Universities of Scotland, had been approved by Order in Council on 28th June 1892, and in 1894 the University of Edinburgh resolved to admit women to graduation in medicine. The ordinance made provision for their instruction in any of the subjects taught within the University, either by admitting them to the ordinary classes or by instituting classes conducted by the professors and lecturers in the several subjects: “provided always that the University Court shall not institute classes where men and women shall be taught together except after consultation with the Senatus, and provided also that no professor whose commission is dated before the approval of this Ordinance by Her Majesty in Council shall be required, without his consent, to conduct classes to which women are admitted.”

During the years of the Great War and in the shadow of the world's crisis the whole situation became materially altered and the third phase unexpectedly supervened. The question of the medical education of women was no longer one involving the provision of instruction in the interests of a

¹ In August 1893, in preparation for the winter session an increased number of beds for the instruction of women was obtained in ward 27, the cost of maintaining them being defrayed by the Scottish Association for the Medical Education of Women.

THE LAST DECADE IN OLD ROYAL INFIRMARY

comparatively small group of female students. Actuated by patriotic motives the women responded in large numbers to their country's call to service and many of them commenced the study of medicine. The subjoined table reveals at a glance how their decision became at once reflected in the rapid increase in the matriculation figures at Edinburgh.

Matriculated Students in the Faculty of Medicine at Edinburgh during the Years of the War.

Academical Year.	Men.	Women.	Total Students.
1913-14	1304	78	1382
1914-15	962	106	1068
1915-16	771	157	918
1916-17	709	240	949
1917-18	823	324	1147
1918-19	1310	373	1683
1919-20	1555	413	1968
1920-21	1550	417	1967
1921-22	1457	381	1838

In the session 1915-16, sixty-six women had commenced the study of medicine in the Edinburgh School of Medicine for Women, and the Dean of the School in 1916 approached both the managers of the Infirmary and the University Court relative to arrangements for coping with the instruction of the increasing number of female students. In July of that year the Court resolved to make provision within the University to teach them, so far as was possible on the same footing as men, and appealed to the Board of Management of the Infirmary to assist them. Within the hospital the conditions were otherwise than favourable, but definite action on the part of the Board was unavoidable. The medical and surgical staff were considerably depleted, a number being on foreign service, while many of those at home were not only engaged in the work of the Infirmary but were on duty in the military hospitals in the neighbourhood of the city. Moreover, the restrictions, introduced in 1892, limiting the women to certain wards and, in some instances to separate classes, were still extant so that in all these circumstances the action of the

ALL RESTRICTIONS ARE REMOVED

managers was considerably hampered in their endeavour to meet the new situation.

In July 1917, however, an Agreement was concluded between them and the University Court, introducing several changes, which, in the conditions prevailing, were to be regarded as only provisional and of a temporary character.¹ The clinical instruction of women in medicine and surgery was no longer to remain in the hands of two members of the staff and be confined to the two wards previously reserved for that purpose, but all the clinical teachers—academical and extra-academical—were to teach them in rotation. The former regulations regarding separate classes were to some extent relaxed and while the two sexes continued to be taught separately in the bedside clinics in medicine and surgery and, for the first time in the department for diseases of the skin, the clinical lectures in medicine and skin diseases were to be given in conjoint classes, but were to remain separate in surgery. The teaching of gynæcology was to maintain its separate character both in clinics and lectures, while all the instruction in the ophthalmic and aural departments continued to be given to mixed classes.

In the post-war years restrictions and reservations with but one particular exception have gradually disappeared. In 1927 the physicians obtained the sanction of the managers to have mixed male and female instruction in the wards,² but it was not till nine years later that a similar step was taken in the teaching of clinical surgery, when mixed classes were taught both at the bedside and in the clinical lecture theatre.³ The struggle for the recognition of equal opportunities for both sexes in their medical education had thus been prolonged over a period of sixty-six years.

Throughout the whole of the decade 1870-79 the attention of those immediately concerned with the erection of the new Infirmary was directed mainly to the preparation of the plans

¹ Supplementary Agreement between the Edinburgh University Court and the Managers of the Royal Infirmary of Edinburgh, 31st July 1917.

² Minute, Royal Infirmary, 28th July 1927.

³ *Ibid.*, 22nd June 1936.

THE LAST DECADE IN OLD ROYAL INFIRMARY

and to the all-important question of finance necessarily associated with its construction. The Committee of the Court of Contributors in their report to the General Court for the year 1869-70 did not take a very favourable view of the financial position, when considered in its relation to the immediate future. Along with a deficiency in annual income of £786 during 1870 was the further fact that part of the Capital Stock of the Corporation would in all probability be apportioned to the building of the new Infirmary, a step legalised by the recent Edinburgh Royal Infirmary Act; the committee thus envisaged a considerable reduction in the future annual revenue of the hospital. The building fund to date raised by public subscription was £75,000, but from this a considerable proportion had to be deducted to meet expenditure already incurred. Thus, £5256 had been spent in advertising the appeal, in expenses connected with the Parliamentary Bill and in meeting the liabilities incidental to the preparation of plans for the extension of the Infirmary on the existing site. Moreover, £56,330 had already been spent on the acquisition of the new sites, of which £43,000 had been paid for George Watson's Hospital and grounds and £13,330 for certain contiguous areas on the west side of Watson's property. A sum of £61,586, therefore, required to be deducted from the total subscriptions, leaving £13,414 available for the purpose of erecting the new hospital. To this, however, had to be added £21,025, which the University was willing to pay for the buildings of the Old Infirmary—a sum which eventually became £28,500 when the property was purchased by the Town Council in 1885¹—and a further sum of £50,000 which the managers were prepared to withdraw from the Capital Stock;² calculated on this basis, £84,439 were available for the erection of the new Infirmary, a very insufficient sum on which to commence the construction of the large hospital that was contemplated. In the light of the proposed deduction from Capital it was not surprising that

¹ Chapter xiii, p. 236.

² The ultimate sum expended on the sites purchased totalled £62,438; the Capital Stock applied to building became £71,000.

PLANS OF THE NEW ROYAL INFIRMARY

some anxiety was expressed concerning the future maintenance of the Infirmary.

Early in 1872 the architect presented his plans and estimates for a hospital containing 750 beds, computing that the probable cost in round numbers and exclusive of site would amount to £270,000, which, with architect's fees, incidental expenses and furnishing, would eventually reach a total of not less than £300,000. These estimates, however, had been prepared on the understanding that provision was to be made for a large number of beds to accommodate patients during epidemics of fever. The managers had not entirely forgotten the experience of some of their predecessors: the heavy expenses incurred by the Infirmary, the embarrassments due to overcrowding and the increased labours of the medical staff in dealing with large numbers of cases of infection, to which more than one physician had fallen a victim, still lingered in the memory of some of the members of the Board. Moreover, the Public Health (Scotland) Act, 1867, had enacted that Local Authorities should provide temporary hospitals during epidemics of fever and assess the community for their maintenance. Consequently, a hospital containing the large number of beds proposed by the architect would not be necessary.

Accordingly, fresh plans were prepared for a hospital designed for 500 beds in the first instance, of which 276 were to be medical and 224 surgical, and instructions were given that the estimates should not exceed £150,000, this being regarded by the finance committee as the probable limit of the building fund at the date of the completion of the Infirmary. The competitive offers presented by the several contractors varied somewhat, being either just above or just below £170,000, and the addition of certain incidental expenses would probably raise this figure to £185,000. The difference between the estimates submitted and those suggested by the finance committee was due to a recent large rise in wages and in the cost of material. As it was essential that a commencement should be made with the construction of the Infirmary without further delay, arrangements were made to

THE LAST DECADE IN OLD ROYAL INFIRMARY

build the medical house in the first instance and to utilise Watson's Hospital for the administrative and domestic departments. The estimated cost of this part of the scheme was £100,000 for which the managers hoped to have at their disposal a sum of £104,303.

It was not till 1874 that a commencement was made with the erection of the surgical house, the delay having been due to the fact that the building fund was not deemed sufficient to meet the additional outlay which this entailed. As the managers were contemplating the withdrawal of a further considerable sum from the Capital Stock for this purpose, legal opinion was sought as to the correctness of this step. Counsel expressed the view that the Infirmary Act of 1870 had given powers to apply, for the purpose of building, only such sums as were already held by the Infirmary Corporation and he therefore considered that it would be wiser to obtain further Parliamentary sanction to utilise more recent legacies and donations for a similar object. Accordingly the necessary action was taken, a Bill was passed through Parliament and the building of the surgical house was begun.

During the period of construction of the new hospital the Infirmary was particularly fortunate in the number of large legacies it received, specially welcome when so many commitments required to be met. Among the bequests was one of £40,000 from Mr Thomas Grindlay, Edinburgh, another of £17,500 from Mr Thomas White, £13,630 from Mr Buchanan of Dura, £13,000 from Mr David Nisbet, an architect in the city, and £6000 from Mr James Lambert, Alloa. All these gifts with many others are permanently recorded on the mural tablets placed in the corridors of the Infirmary.

The new hospital was erected in the effective and picturesque Scottish Baronial style, a model favoured by Mr David Bryce who was one of its foremost exponents. As he died in 1876 he did not see the completion of his scheme which was finished by his nephew. The medical and surgical houses, constituting two distinct groups of buildings, were constructed on the pavilion system so as to permit of the free access of the maximum amount of air and light. Each

DESIGN OF NEW ROYAL INFIRMARY

pavilion consisted of a basement floor, three main floors containing the wards, and an attic floor. The four pavilions of the medical house standing close to the Meadows were linked together by a long corridor, superimposed upon which was an open balcony connecting the wards on the second floor. The surgical house occupied the higher section of the area next to Lauriston Place. It comprised six pavilions, four facing Lauriston, the remaining two looking towards the medical house. The main entrance and hall and the principal staircase of the hospital were placed in the centre of the surgical house and surmounted by the clock tower.

The administrative departments were situated in the old reconstructed George Watson's Hospital standing between the surgical and medical houses. These included the residency, the quarters of the house physicians and surgeons, the kitchen, the apothecary's shop, the house of the Lady Superintendent of Nurses, the Nurses' Home, and the panelled chapel in which the boys of Watson's Hospital had worshipped. The two houses were connected by a corridor and balcony. The boiler-house, laundry, linenry, carpenter's shop and pathological department were in the north-west corner of the grounds and the house of the Superintendent stood intermediate between the two hospitals, close to the east boundary of the property formed by the Middle Meadow Walk. Such was the general plan of the new Royal Infirmary, worthy of the city and of the architect who designed it.

As the building operations had progressed so satisfactorily it was confidently expected that the new Infirmary would be ready for occupation during 1879. But the furnishing of the hospital, not hitherto included in any of the previous estimates of expenditure, remained to be considered, and the managers decided to appeal to the public for funds for this special purpose. The response was at once most substantial and gratifying. It was estimated that approximately £17,000 would be necessary, and the money was collected mainly from the citizens. In this connection permission was sought by a lady and her daughter resident in the city to raise a fund amongst the ladies of Edinburgh sufficient to furnish one

THE LAST DECADE IN OLD ROYAL INFIRMARY

of the largest wards in the hospital. The proposal was gratefully accepted by the Board and £552 were subscribed. Other sections of the community also interested themselves in the same object: the Edinburgh Business Women contributed £320; a sum of £534 was collected by contributions from 6000 domestic servants with which two wards were furnished; the medical practitioners in the city contributed £341; the Royal College of Physicians gave a donation of £630 for the equipment of two wards; and the sister College of Surgeons sent £210 towards the fund.

The Building Accounts were finally closed on 30th September 1884, and the subjoined table gives at a glance the total expenditure connected with the erection of the new Infirmary.

Sum expended on erection of Buildings . . .	£254,762	13	1
Cost of Sites	62,438	10	5
Expenses of Acts of Parliament	2,015	4	6
Architect's Commission, Salaries to Clerks of Works	11,694	15	9
Laying Foundation Stone, Public Burdens, Insurance	3,436	18	11
Interest paid on Building Fund Debt to 30th September 1879	1,367	8	6
Furnishing of the Hospital	16,110	15	6
	<u>£351,826</u>	<u>6</u>	<u>8</u>

When the accounts were paid on the completion of the new Infirmary the managers found that they were faced with a large deficit on the building fund to the amount of £50,885, a sum, however, which was gradually repaid in annual instalments and the debt finally liquidated in 1895. The subscriptions to the building fund had only reached the sum of £88,648, the greater part of the money utilised in the construction of the hospital being obtained by transferring a sum of £200,557, obtained in part from the General Fund of the Infirmary and in part from legacies.

With the decision made to open the new hospital on 29th October 1879, the public ceremony was staged in the open space between the surgical and medical houses. In the absence of Royalty, through unavoidable engagements, the

OPENING OF NEW ROYAL INFIRMARY

Right Hon. the Lord Provost, Mr Thomas Jamieson Boyd, afterwards knighted by Queen Victoria in 1881 on the occasion of the Great Volunteer Review in the Queen's Park, performed the ceremony. In the circumstances no more appropriate choice could have been made as it was largely due to his enterprise and untiring efforts that the building fund had been successfully raised: after his death in 1902 his bust executed in marble was placed in the entrance hall of the Infirmary. The general interest aroused in the opening event was shown in the vast number of persons who took advantage of the privilege of inspecting the hospital, nearly 40,000 passing through the buildings during the afternoon and evening when the wards and corridors were illuminated. Two days later the patients, to the number of 240, were conveyed in cabs and other conveyances from the old to the new Infirmary, and in the evening the whole of the staff occupied their new quarters.

One final scene was set in the old Royal Infirmary, haunted by so many memories of a great and imperishable past, memories which continue to cling to such of the venerable buildings as still stand on the old site and which, during so many decades, ministered to the needs of thousands of the sick and injured poor. In the dimly-lighted operating theatre behind the old High School, in which Syme and Lister had so successfully laboured, the medical and surgical residents gathered round the operating table and in solemn cadence sang their parting song, "Auld Lang Syne."