Middle Articles

Aberdeen Medical School

[WITH SPECIAL PLATE]

British Medical Journal, 1969, 2, 816-817

On 10 February 1494 Pope Alexander VI, one of the Borgian Popes, granted a Papal Bull to Bishop William Elphinstone of Aberdeen authorizing the establishment of a university in northeast Scotland. Medicine was one of the foundation faculties, and, as similar faculties were not instituted at Cambridge until 1540 and at Oxford until 1546, Aberdeen has the oldest faculty of medicine in the English-speaking world.

Elphinstone was a remarkable man. A graduate of Scotland's second oldest university, Glasgow, he was more an administrator and lawyer than a divine. For a time he lectured in the Universities of Paris and Orleans before returning home to become a member of Parliament, an ambassador, and, at one time, Chancellor of Scotland. In 1483 he was nominated to the See of Aberdeen. One of his first tasks was to restore his cathedral, which had been built in the twelfth century on the site of the early Christian church founded about A.D. 540 by St. Machar, a disciple of St. Columba of Iona.

The university which Elphinstone established was known first as St. Mary's and later as King's College. It incorporated many of the institutions of mediaeval Continental universities, such as the system of nations—still in use—for the election of the students' representative, the rector. Although essentially an ecclesiastical foundation—the motto of the university is *Initium sapientiae timor domini*—it was evidently Elphinstone's intention to foster medicine, for its endowment is mentioned earlier than that of any other faculty. Nevertheless, the salary of the mediciner was considerably less than that of the theologian or of the lawyer.

The first buildings of King's College in Old Aberdeen took about 10 years to complete. Two of them survive almost intact—the tower, surmounted by the crown of the Holy Roman Empire, and the chapel, the choir stalls of which are the finest examples of mediaeval woodwork in Scotland. Bishop Elphinstone lived to the age of 83 and lies buried in the chapel.

Under its founder and one of his successors, Bishop Gavin Dunbar, the new university flourished and attracted students from far and near. The teaching of medicine nearly 500 years ago was very different from that practised in the present century. A few lectures were given to students of several faculties—it was considered that any educated person should have some knowledge of the subject. The few small hospitals that existed were run by religious orders and in their function bore more resemblance to a modern motel or old people's home than to a twentieth-century hospital.

With the Reformation of the Church in the middle of the sixteenth century the Catholic institution of King's College was constantly at loggerheads with the powers temporal and spiritual in Scotland. Little is known about the medical faculty during this period, but towards the end of the century the Protestants temporarily suppressed it. Indeed the Protestants became so exasperated by the stubborn and unrepentant attitude of King's College that in 1593 George Keith, fifth Earl Marischal of Scotland, founded a completely separate Protestant university in the centre of the new town (or southern half of modern Aberdeen). Thus, while there were only two universities in the whole of England, Aberdeen had two within a mile of each other. King's College and Marischal College stoutly

defended their independence for over 250 years. Many attempts were made to unite them. None was permanently successful until 1860, though they had been joined temporarily as Universitas Carolina during the reigns of Charles I and Charles II. The close proximity of and the bitter enmity between the two faculties of medicine in the rival universities acted to the detriment of both. So much so that in 1789 a group of 12 medical students, dissatisfied with the standard of instruction, formed a medical society, the forerunner of the Aberdeen Medico-Chirurgical Society. One of these students was James McGrigor, later to become the "father" of the Royal Army Medical Corps.

In spite of possible inadequacies in their medical education several Aberdeen graduates were to make important contributions to medical knowledge. Alexander Gordon described the cause of puerperal fever in 1795. His views were rejected at the time, but he seems to have accepted this setback more philosophically than did the tragic Semmelweis half a century later. Sir William Burnett gave the first accurate account of Malta (undulant) fever; the other form of brucellosis, abortus fever, is still prevalent in his homeland. Later last century Sir Patrick Manson was to discover the cause of filariasis and of malaria, and Sir Alexander Ogston the part played by staphylococci in surgical sepsis. The latter discovery received a chilly reception, particularly from the editor of the *British Medical Journal*, who, in rejecting it, asked scoffingly, "Can any good thing come out of Aberdeen?"

King's College and Marischal College were finally united as the University of Aberdeen in 1860. At that time there were 145 students in the faculty of medicine, which was then centralized at Marischal College. Towards the end of last century much new building took place at Marischal College. Appeals were made to meet the cost of these new developments. Aberdeen has never lacked generous donors, and on this occasion a large sum was gifted by Dr. Charles Mitchell to provide a graduation hall and a students' union, while the tower was heightened at his expense. The new granite façade of Marischal College, incorporating at its south end the old Greyfriars Church, was opened in 1907 by King Edward VII.

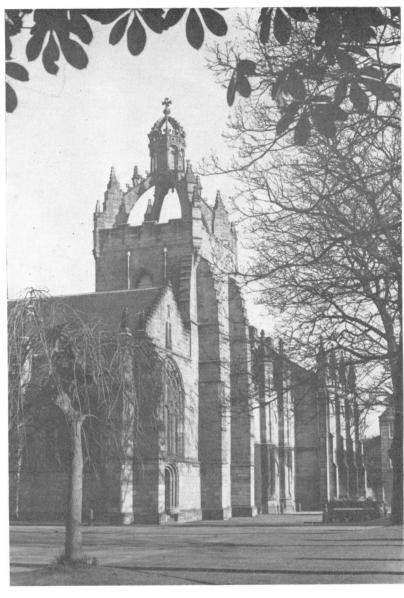
Teaching Hospitals

The early monastic hospitals suffered severely during the Reformation, but a small hospital founded in 1531 by Bishop Dunbar and two hospitals belonging to the Incorporated Trades or Guild Brethren survived for several centuries. By 1739, however, they were inadequate for the needs of the expanding City of Aberdeen (population then 15,000), so the townspeople resolved to build their own infirmary at Woolmanhill. A royal charter was granted in 1773.

Several major extensions were added to the original building, but by the end of the first world war it was realized that further expansion on the rather cramped site at Woolmanhill would be impossible even though additional accommodation was urgently needed. Matthew Hay, professor of medical jurisprudence,

ABERDEEN MEDICAL SCHOOL

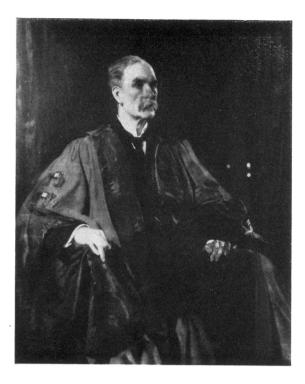
Tower and chapel of King's College, Old Aberdeen, which was founded in 1494 by Bishop Elphinstone. The tower is surmounted by the Crown of the Holy Roman Empire.



Royal Aberdeen Children's Hospital: view of the new outpatient department at the east end of the Foresterhill teaching hospitals' campus. (Nursing Times.)



ABERDEEN MEDICAL SCHOOL



Matthew Hay, M.D., LL.D., professor of forensic medicine, 1883-1926, and originator of the Aberdeen Joint Hospitals Scheme. He was appointed to the Chair at the age of 27, having already established an international reputation as a pharmacologist. Much of his later work lay in the field of social medicine. In 1920 he proposed that the teaching hospitals and medical school should move away from the congested centre of Aberdeen to the spacious site at Foresterhill. (Portrait by Charles Sim, R.A.)

Aerial view of the eastern part of the Foresterhill campus in 1967. The Royal Infirmary is in the centre; beyond it is the Maternity Hospital and in the background the Royal Aberdeen Children's Hospital. The cross-shaped building to the left is the medical school, now being joined to the Royal Infirmary. Among the trees in the top left corner is the Royal Cornhill Hospital. The nurses' home is in the centre foreground and Foresterhill College is on the far right. (Aerofilms Ltd.)





Foresterhill College.



Modern group practice premises in Aberdeen.

ABERDEEN MEDICAL SCHOOL



Aberdeen Royal Infirmary from the south-west, 1969.



University Medical Buildings, Foresterhill.



Patients' entrance to the most recent extension to the Royal Infirmary.

British Medical Journal

fostered the idea that the principal hospitals and medical school should move to a completely new location on the outskirts of the city. The scheme had the enthusiastic support of the town council and university court, and soon a magnificent site of over 140 acres (57 hectares) at Foresterhill, adjacent to the Royal Cornhill (Mental) Hospital, was acquired. The first building of the new medical complex to open on the Foresterhill campus was the Royal Aberdeen Children's Hospital in 1928. The Royal Infirmary itself was officially opened by King George VI (then Duke of York) in 1936. Two years later the Maternity Hospital was completed alongside the Infirmary. The clinical part of the medical school was built immediately to the north; the original intention had been to have anatomy and physiology also located at Foresterhill, but the outbreak of the second world war led to the abandonment of this plan.

Matthew Hay died before the new Royal Infirmary was built; his chair of medical jurisprudence was abolished and his test for bile salts in the urine is now largely forgotten. But by his vision and initiative he bequeathed to the profession in the north-east of Scotland a teaching hospital campus that is the envy of medical schools throughout the Kingdom: Si monumentum requiris, circumspice.

Foresterhill Campus Today

During the present decade an extensive building programme has been undertaken at Foresterhill. As originally completed in 1936 the Royal Infirmary contained over 600 beds. With the development of newer teaching methods and of advanced medical techniques more modern accommodation became necessary. The first part of the new extension to the Royal Infirmary was opened in 1966 by Queen Elizabeth the Queen Mother. The wards are of "race-track" design and 40% of the patients are in single rooms. The new building will eventually form the main entrance, not only to the older part of the hospital but also to a new tower block containing 350 beds to be built immediately to the south. National finances permitting, this second extension will be finished by 1974. Ample room for teaching students in small groups and good facilities for research will be provided. Thanks to a recent large donation a coronary care unit is now in course of erection. An accident centre is to be built near by, and later an outpatient department—at present outpatients are seen in the original infirmary building at Woolmanhill, in the centre of the city. Even after completion of this ambitious programme there will still remain many dozens of acres of land to the west, on which eventually it is the intention to rebuild some of the smaller hospitals in Aberdeen, such as those for geriatric patients.

With the general, special, and psychiatric hospitals all being situated close together at Foresterhill it seemed logical to combine their formerly separate nurse-training schools. In 1967 the regional hospital board opened Foresterhill College on the south side of the campus. The modular building had been completed in a matter of months. Divided into three main areas, its layout provides easy communication, a low noise level, and maximum flexibility. About 800 student and pupil nurses receive the theoretical part of their training in the modern classrooms, laboratories, and specially equipped practice rooms. The aim of the college is to provide a comprehensive and integrated education suitable for nurses who will eventually work in different types of hospital. Alongside the college the university department of sociology has established a training centre, and it is the policy of the college to co-operate closely with teaching programmes of other health and welfare services.

Developments in the University

Marischal College stands on a rather restricted site in the centre of Aberdeen. The preclinical part of the medical school

and the administrative offices of the university are still located there, but after the war the university decided to concentrate future expansion in Old Aberdeen, around King's College. The design of and the materials used for the new buildings erected close to Bishop Elphinstone's original college blend harmoniously with the ancient stonework, while those situated a little further off, such as the Natural Philosophy Building, are decidedly contemporary. Crombie Hall, opened by Her Majesty the Queen in 1960, was the first hall of residence for both men and women students in Britain; it is named after Dr. I. E. Crombie (of the famous tweed firm), a generous benefactor of both the hospitals and the university. Johnston Hall was opened in 1962-Thomas Johnston was Secretary of State for Scotland and Chancellor of the University in the 1950s. The third hall of residence, Dunbar Hall, was erected immediately east of the cathedral that Bishop Dunbar had helped to complete.

Until recently the curricula in Scottish universities were somewhat rigidly controlled by statutes passed in the nineteenth century. These statutes have now been repealed and experimentation is under way. In Aberdeen the medical curriculum has been radically altered during the past three years. Time spent studying anatomy has been greatly reduced and applied anatomy is being taught in the clinical years. The old, formidable Final M.B. examination has been abolished. Instead, in their sixth year students act as junior members of the ward team and may choose elective subjects to suit their needs; their progress is continuously assessed throughout the year. At the present time there are 551 students in the faculty of medicine; 110 students entered the second year in 1968. A degree in medical biology has been introduced (B.Med.Biol.) and it is possible to combine courses for M.A. or B.Sc. degrees with the earlier part of the medical curriculum.

The medical school at Foresterhill is being extended. A link building to join the school to the Royal Infirmary should be ready later this year; it will provide additional teaching and laboratory accommodation. The medical library is being enlarged, and beside it a modern refectory will soon be ready for use. Within the next few years a postgraduate centre is to be provided. It will include a large auditorium and a hall and ancillary rooms for the Medico-Chirurgical Society. It is hoped that other organizations, such as the Royal College of General Practitioners and the British Medical Association, will base their activities on this centre.

New courses have been or are being arranged and new university departments created—for example, genetics and human ecology. One of the most interesting of these developments has been the establishment of a general practice teaching unit. This unit arranges for the attachment of students to selected general practices during part of their final year. It has carried out a most valuable study of the catchment area of practices; the findings are already being applied in the city. One of the greatest difficulties confronting those who have negotiated on behalf of general practitioners in the past has been the lack of quantitative data on their work-load. To provide this essential information the unit is currently collecting data on one day every fortnight from 150 out of the 250 general practitioners in the north-east region. A health centre on the Foresterhill campus staffed by independent practitioners working in conjunction with university teachers is envisaged for the future. Just as the teaching hospitals combine patient care, teaching, and research, so these three elements will be blended in the teaching health centre.

With its long and honourable history, its modern buildings, and the cordial relations existing between all members of the profession, the Aberdeen Medical School is well placed to absorb, develop, and benefit from the advances in medicine, in medical education, and in the organization of the health services that are likely to take place in the quarter of a century preceding the 500th anniversary of the university.