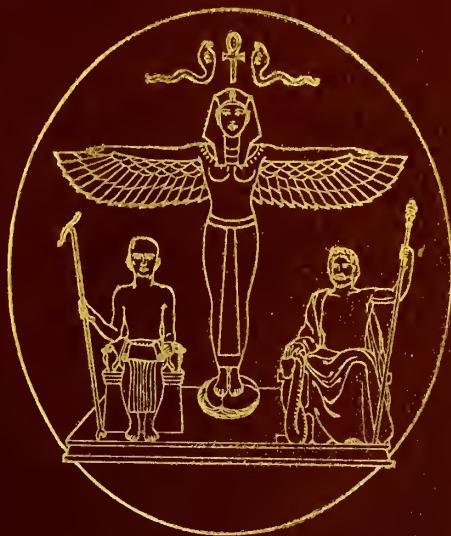
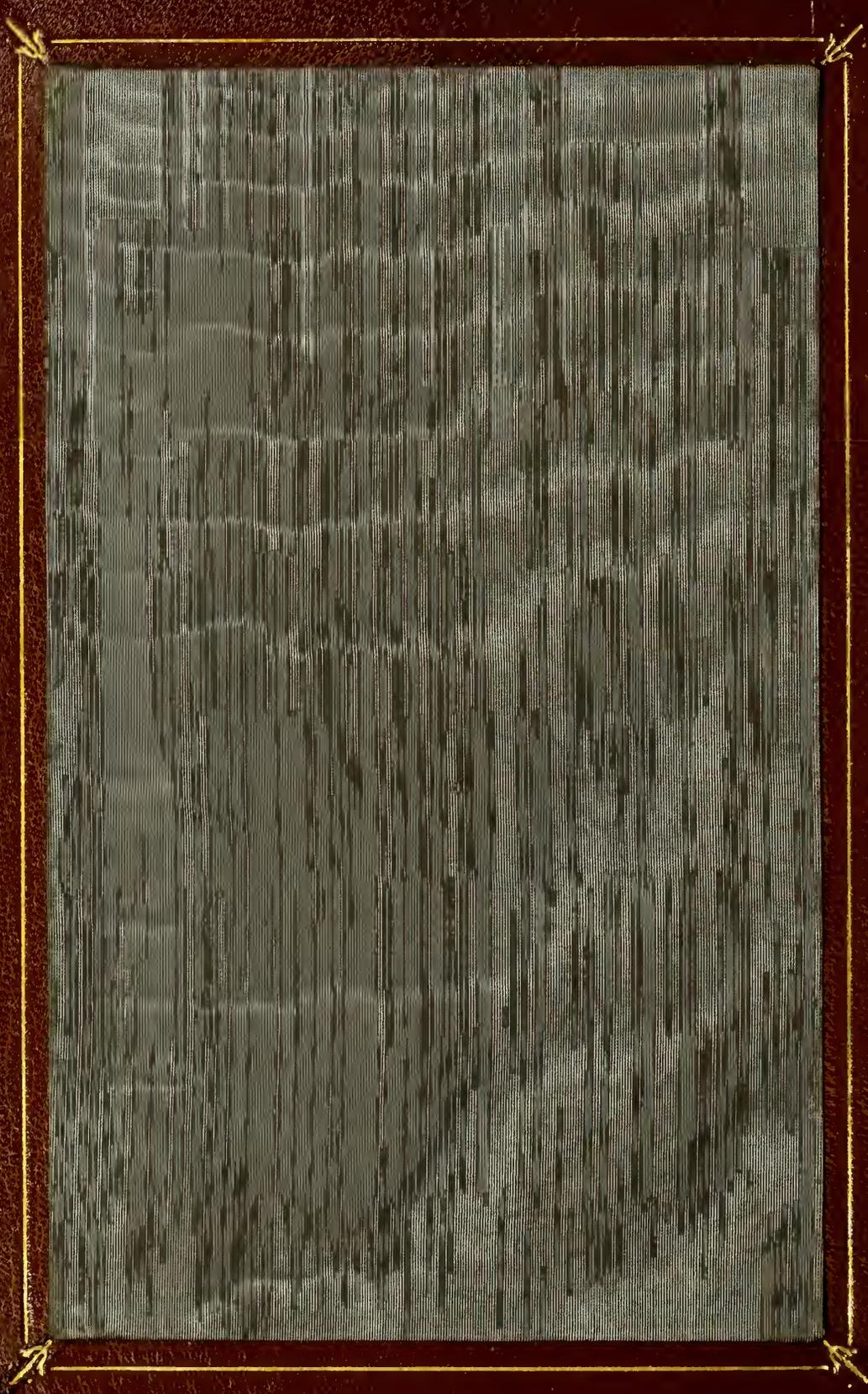


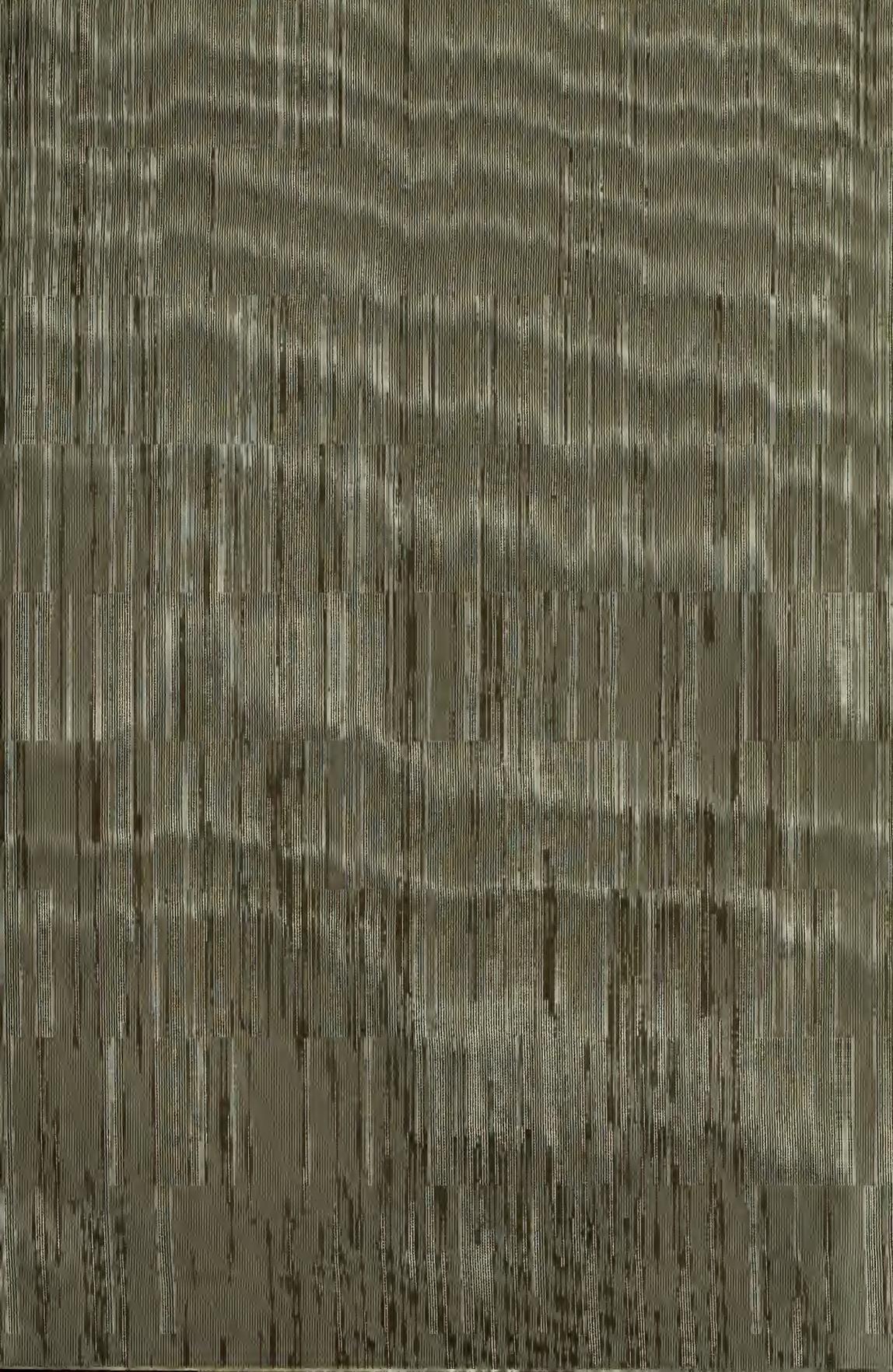


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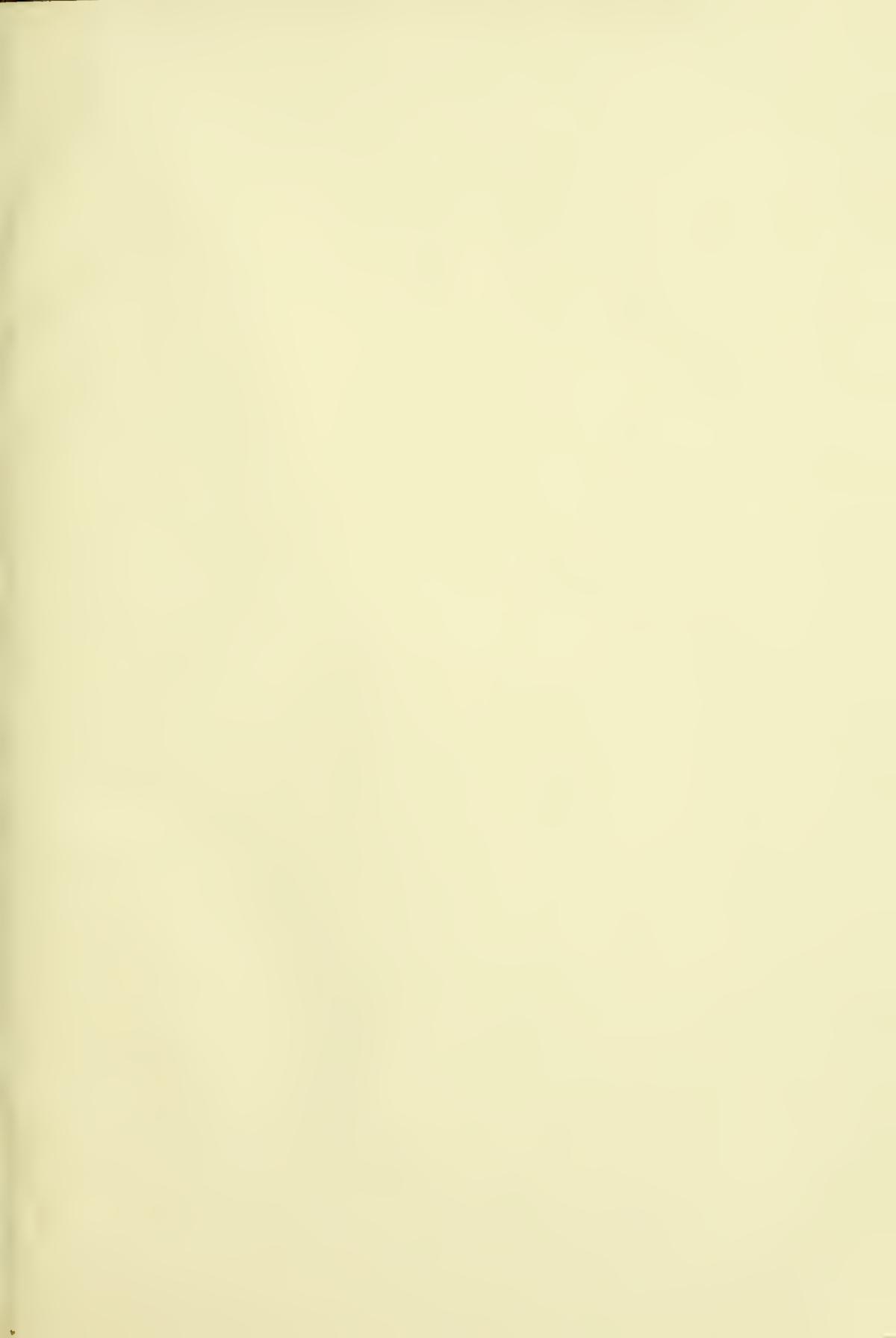
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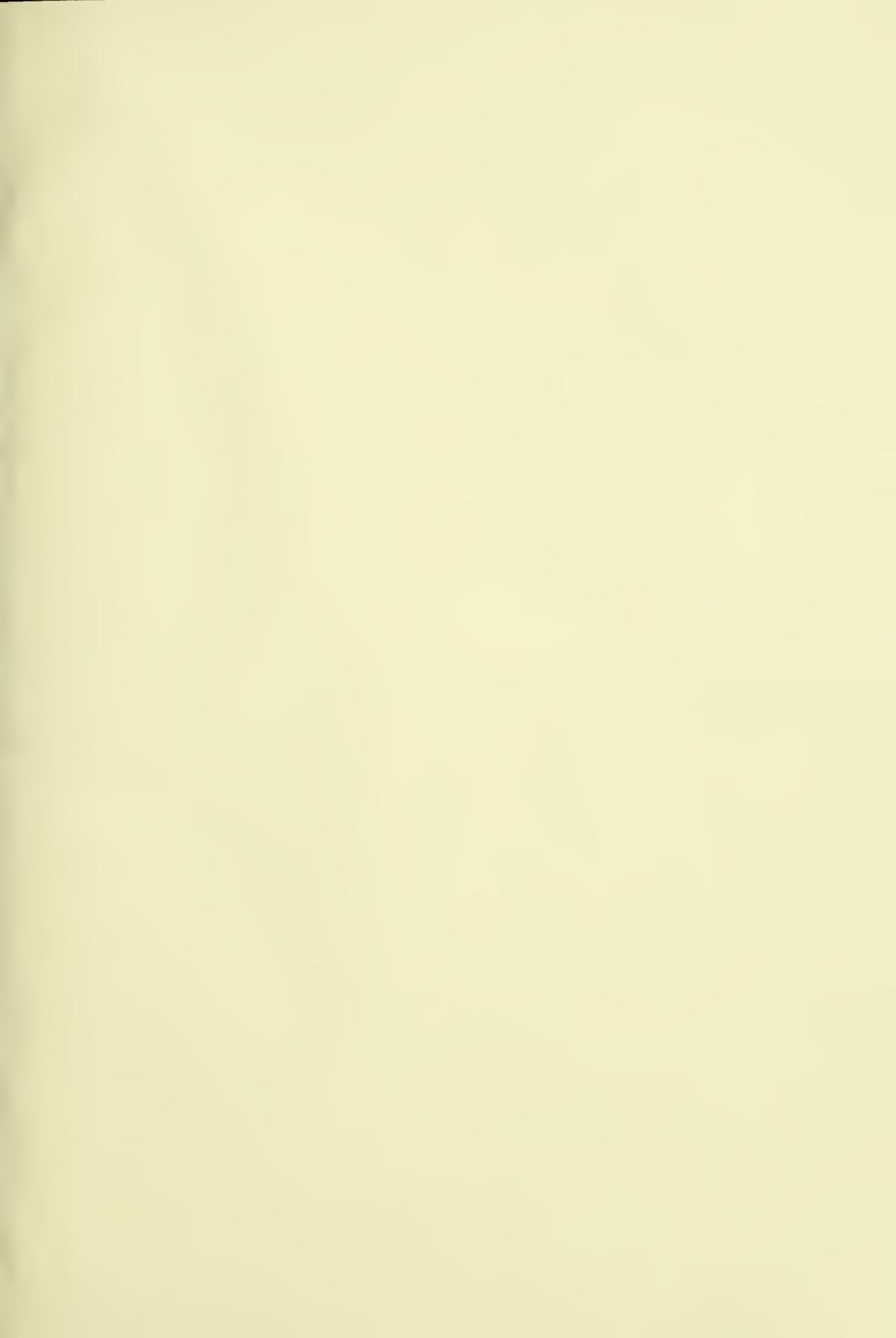
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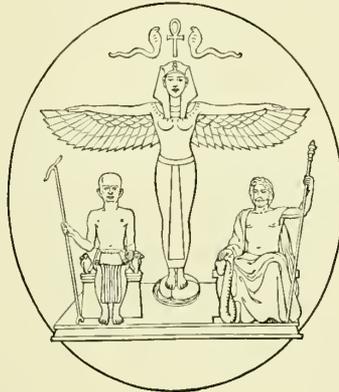
HISTORY
OF
SCOTTISH MEDICINE

BY

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SECOND



EDITION

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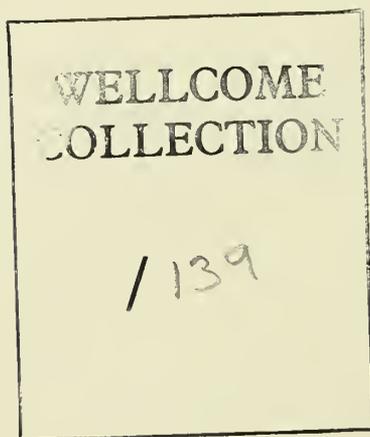
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FOREWORD
To Second Edition

THERE is probably no specialised branch of study which embraces the whole history of mankind to such a comprehensive degree as that of medicine and the allied sciences. Within this field of investigation come all the vicissitudes of human existence and endeavour.

It is by the historical methods of approach in medical research that we are enabled to understand and reveal the philosophies and practices of ancient peoples. By thus expounding the achievements, the failures and the evolution of human effort, inspiration is aroused, leading to discovery and invention.

In the middle of the seventeenth century the great historian, Bishop Fuller, demonstrating a true conception of the value of historical research, remarked that it "maketh a young man to be old without wrinkles or grey hairs: privileging him with the experience of age without either the infirmities or inconveniences thereof. . . . It not only maketh things past present, but enableth one to make a rational conjecture of things to come."

As we delve into the history of mankind we find the foundations of medicine are submerged in the realms of magic and priestcraft with their profusion of charms, amulets and talismans, mysterious ceremonies and superstitious practices. From these primitive origins of the art of healing, and from the long intervening centuries of religio-medical beliefs, modern medical science has been slowly evolved.

Although we realise that many of the medical and scientific opinions of to-day may in the next century be discredited, yet it is the discerning student of history who discovers the fact that from the errors of the past many new truths of modern science are to be disclosed.

It is of paramount importance, therefore, that from every practical standpoint, the student of to-day should understand and appreciate the incalculable value of the history of medical science. Not only does it enable research workers and students to gain a clear and comprehensive view of the progressive stages by which the present condition of knowledge has been reached, but it also offers an unflinching source of inspiration for future discovery.

From the close of the seventeenth century Edinburgh has occupied a position pre-eminent in the academic world of medicine and surgery, a distinction which is due largely to the zealous enthusiasm and inspiration of the celebrated Dr. Archibald Pitcairne (1652-1713) and his contemporaries. Pitcairne, like Borelli in Italy, became one of the founders of the Iatro-mechanical or Iatro-mathematical school of thought. The system developed from Harvey's demonstration of the circulation of the blood, and its adherents attempted to prove that all the bodily functions were mere mechanical activities. Although this idea did not prevail for long, it formed, for the century after Harvey, an experimental working hypothesis, the principal result of which was undoubtedly to develop an exceptionally keen interest in the study of anatomy and physiology.

Thus at the commencement of the eighteenth century the brilliant anatomical work of Pitcairne and other Edinburgh surgeons resulted in the appointment of Robert Eliot as first professor of anatomy (1705) in Britain.

To Pitcairne more than anyone else may justly be assigned the credit not only of originating the Edinburgh Medical School, but of doing much to establish the world-wide reputation it gained, which even in those days was due largely to its acceptance of the Paduan tradition which Pitcairne so strenuously upheld.

Again, in the nineteenth century, as a pioneer in the teaching of the history of medicine, we find Edinburgh leading the way. Even as early as 1857 such importance was attached to the subject in Edinburgh that the distinguished Dr. James Warburton Begbie (1826-1876) inaugurated a series of lectures on the history of medicine in the extra-academical school. After a number of years they ceased through Begbie having relinquished the post on account of the great demand for his professional services as a consultant.

Notwithstanding this lead, however, less than 30 years ago not one university in the British Empire was providing regular academic instruction in the history of medicine.

It was in 1907 that the authorities of the University of Edinburgh, demonstrating once again their characteristic forethought and powers of discernment in educational matters, forestalled other British Universities by founding a lectureship in the history of medicine. Thus they led the way in the establishment of regular university teaching upon a subject which, formerly considered of extraneous interest, now seems destined to become an integral part of medical education.

It was with special gratification, therefore, that I learned of the establishment of the lectureship on the history of medicine, and of the appointment of Dr. J. D. Comrie as Lecturer in the University of Edinburgh.

The acceptance of such an appointment was an undertaking of no mean responsibility. The fact that during the 19 academic years which have ensued, from 1908-9 to 1931,* attendances at these lectures have consistently maintained an average of close on 100 students, bears witness both to the perspicacity of the University authorities, and to the unfailing enthusiasm and ability of Dr. Comrie during the 24 years he has held the appointment.

The remarkable success which has attended Dr. Comrie's teaching is undoubtedly due to his profound knowledge, his untiring zeal for the subject of medical history, and to the proficiency of his work at Edinburgh. The erudite character of his contributions upon the history of medicine to scientific journals and transactions of learned societies has deservedly gained for him a world reputation.

* During the years of the World War, no University Lectures were held in this subject at Edinburgh (1915-1919).

It had long been a matter of wonderment to me why greater interest was not taken in the history of the art and science of healing, embracing as it does, not only medicine and surgery, but also chemistry, pharmacy, anthropology, etc. For the chemist, the lawyer or the philosopher who wishes to attain eminence in his particular profession, a comprehensive knowledge of its historical development is essential. This fact is especially true with regard to medicine.

As a student I experienced difficulties in acquiring a knowledge of the origins and development of medicine, etc., owing to the paucity of material in Museums and private collections of objects illustrating the history of the healing arts.

It was the interest and knowledge that I derived from the collection of such objects for my own information which afterwards stimulated me to establish, for the benefit of others, a museum specifically devoted to the history of medicine and the allied sciences.

It is encouraging to observe the growing frequency with which University and other lecturers now bring their students to the Historical Medical Museum in London to expound by objective demonstrations the fascination and practical value of the teaching of the history of medicine. These visual object-lessons do much more than merely supplement the oral instruction of the lecture-room; they help very materially to infuse into the dry bones of history a live and realistic interest.

In the world of medicine and surgery, Scotland has produced a remarkable number of men of professional eminence, and that country's universities have always stood conspicuously in the forefront of medical knowledge and practice.

In 1927, I invited Dr. Comrie to prepare a comprehensive History of Scottish Medicine, a task for which he is so well qualified; and the present volumes are the outcome. The amount of research entailed in an undertaking of this character is obviously great, a labour which Dr. Comrie has accomplished with marked skill and intuition. Throughout the work he has maintained a high standard, and in the treatment of his subject has revealed rare gifts of mind.

The 250th anniversary of the foundation of the Royal College of Physicians of Edinburgh in 1681 seems to be a fitting time for the appearance of this work.

HENRY S. WELLCOME.

THE WELLCOME HISTORICAL MEDICAL MUSEUM

LONDON.

November, 1931.



Design of Obverse and Reverse of
THE WELLCOME MEDALS

These Gold and Silver Medals are awarded annually for competitive essays by Students on some subject of Medical History by the University of Edinburgh

PREFACE
To Second Edition

A BRIEF, limited edition of this work, in one volume, tracing the history of medicine in Scotland up to 1860, was issued on the occasion of the inauguration of the Section for Medical History at the British Medical Association Meeting held at Edinburgh in 1927. In the present edition, comprising two volumes, the early history has been treated more fully, and both text and illustrations have been greatly extended.

This enlarged edition deals with the history of medicine in Scotland up to the end of the 19th century. Institutions or processes that were undergoing development at that date have been outlined up to the present time, but have not been treated in detail beyond the year 1900. In cases where reference is made to members of the profession still living, no elaborate description or appraisal of their work has been attempted.

In some details, material utilised in these volumes has already been included in papers which, in the past, I have contributed to the *Edinburgh Medical Journal*, *British Medical Journal*, *Canadian Medical Association Journal* or other periodicals, or read at International Congresses of Medical History in London and Geneva.

Occasionally, some of the universities, medical corporations and the great hospitals have individually issued historical accounts of their institutions; but hitherto no comprehensive work dealing with Scottish medicine as a whole has been published, although medical practice in Scotland presents many highly characteristic indigenous features.

Throughout I have endeavoured to indicate the influence which various medical and educational institutions, as well as many distinguished men in Scottish medicine, have exerted upon the general advancement of medical knowledge at home and abroad. Also, I have attempted to trace the connection existing between the development of medical practice and social history in Scotland at various epochs.

It is believed that this work will appeal to the increasing number of research workers, students and others who are now taking an active interest in the history of medicine and particularly to those who have been trained in Scotland or otherwise connected with the Scottish medical schools.

Special effort has been made to render the work useful to those who wish to extend their researches in this subject, and, with that end in view, care has been taken to provide copious footnotes of reference to sources of original information, which may be consulted by those desiring to pursue further their studies of individual phases of medical history in Scotland.

The importance and growing recognition of medical history are indicated by the establishment of a lectureship on the history of medicine at the University of Edinburgh in 1907. This substantial and increasing interest is well demonstrated by the fact that, since the inauguration of this lectureship, over 1800 graduates and undergraduates have attended this course.

For the purpose of encouraging original research in the History of Medicine, Dr. Henry S. Wellcome, in 1912, endowed the annual award of a gold and a silver medal, for the best essays on this subject in a competitive examination; these awards to be adjudicated by the University of Edinburgh authorities.* This endowment has done much to stimulate medico-historical research amongst the students of the University.

I desire to record my great obligation to those friends who have assisted in the preparation of these volumes, by indicating sources of information, by advising on subjects of which they have special knowledge, or by helping me to obtain illustrations. These services have been so numerous that individual acknowledgment is impossible, therefore I ask those to whose kindness I am indebted in these matters to be good enough to accept this assurance of my gratitude. In this connection I must mention the permission granted by the trustees of the late Dr. William Gemmell to use his unpublished notes on Mediæval Hospitals. The original sources of illustrations are acknowledged under the individual reproductions.

I am deeply indebted to Miss J. B. Gardner for the great amount of labour she has devoted to verifying references and quotations, and for the care and helpful criticism she has rendered in reading the proofs.

Finally, I have to thank those connected with The Wellcome Historical Medical Museum for much valuable assistance. My gratitude is especially due to Dr. Henry S. Wellcome for the deep interest he has taken in the preparation of this work, and for writing the Foreword.

J. D. C.

25, MANOR PLACE
EDINBURGH.

November, 1931.

* During the 20 years since their inception, 15 gold medals and 15 silver medals have been awarded, and the results have been extremely encouraging. Owing to the European War no competition was held from 1916 to 1919, whilst in the year 1929 no Essay was submitted of a standard to justify the award being made.

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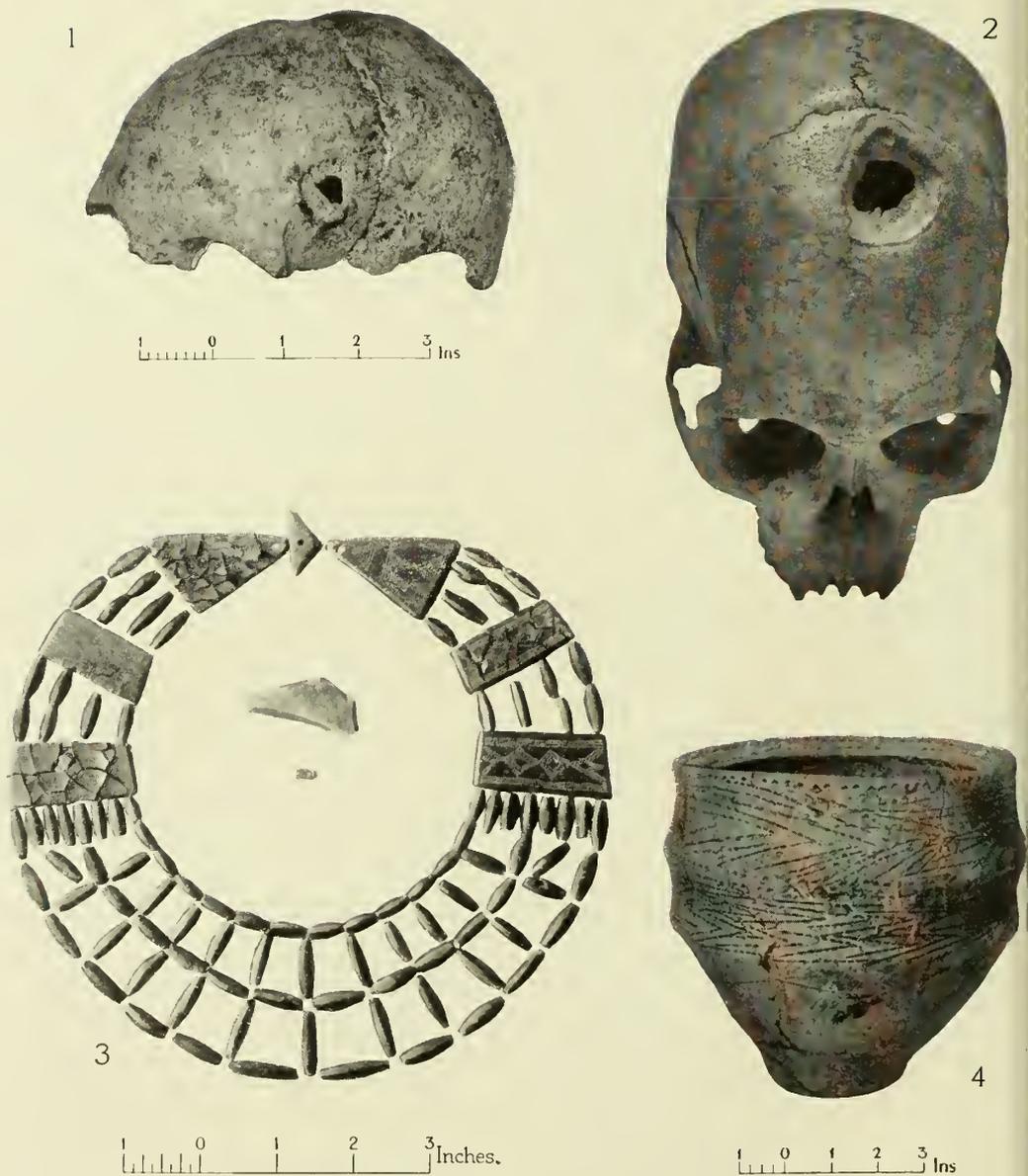
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PRIMITIVE OPERATION OF TREPHINING

1—Trephined skull of a young woman found near Rothesay, Bute, showing opening in left frontal region; 2—Skull of modern Australian aborigine, for comparison, showing similar opening made by scraping with a sharp flint: 3—Jet necklace, flint chip and fragment of bronze found with Bute skull: 4—Hand-made food vessel, urn of clay of Bronze Age, found with Bute skull.

(1, 3 and 4, from National Museum of Antiquities of Scotland;
2 from The Wellcome Historical Medical Museum)

CHAPTER I

MEDICINE OF PRIMITIVE SCOTLAND AND OF THE ROMAN OCCUPATION

It is natural to look for a primitive form of medicine among the earliest inhabitants of the country now called Scotland. The Stone Age and the Bronze Age can readily be distinguished in the northern part of Britain, prior to the advent of the Iron Age upon which the Caledonians had entered when, during the first century of the Christian era, they came in contact with the conquering forces of the advancing Roman Empire.



FLINT KNIFE AND TWO SCRAPERS
from the Culbin Sands, Morayshire
(National Museum of Antiquities of Scotland)

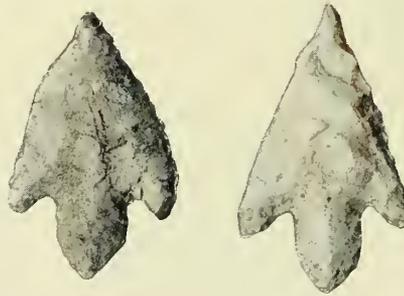
The primitive people dwelling in the northern part of the island during the Stone Age built great sepulchral monuments in the form of chambered cairns, of which many are still extant.¹ They formed finely-polished axes of flint, jadeite and other hard stones. Their warfare and their pursuit of animals were conducted by means of arrows and spears provided with exquisitely-chipped flint heads. Out of the same material they furnished themselves with knives, borers, scrapers and other tools. From a consideration of these, it is evident that the people possessed a high degree of manual dexterity, although there is no means, in the absence of any written records, for ascertaining the extent of their knowledge.

The
Stone Age

¹ Anderson: "Scotland in Pagan Times: The Bronze and Stone Ages," Edinburgh, 1886, p. 229.

We may assume that the healing art comprised the use of simple remedies and applications which experience had shown to be generally useful, and that the action of some plants with an obvious effect had been ascertained. As regards surgical procedures, the sharp flint knives were admirably adapted for such simple and evidently necessary procedures as opening an abscess, and flint scrapers were useful to cleanse the surface of the body.

The operation of trephining for some curative, or supposedly curative, purpose was carried out by peoples of the Stone Age in Europe and elsewhere, as is clearly evident from numerous skulls which have been found showing trephine openings with rounded and healed edges. The trephining operation among such peoples seems to have been carried out by a process of scraping the skull with a sharp flint.



FLINT ARROW-HEADS

found with cinerary urns of the Bronze Age containing cremated human remains,
at Kettle Farm, Kingskettle, Fife

(National Museum of Antiquities of Scotland)

The
Bronze Age

During the Bronze Age (from about 2000 B.C.), considerable advance in general culture was made.¹ The people lived in scattered circular huts constructed with a low stone wall and central roof-pole covered over with beams and thatch.²

To this period belong the sepulchral monuments formed of circles and lines of tall standing stones which, in many places, constitute a prominent feature in the landscape.³ Many of these stone circles have been found to mark what were burial places of families or tribes. In some instances they may commemorate the resting-place of the slain after a great battle. It is probable that they became later places of worship for the family or clan.⁴ In some of these, skeletons are found buried in the earth; in other cases, enclosed in a short cist formed of stone slabs; while many burials have been carried out after cremation, and the ashes are found enclosed in earthenware urns which often show a high degree of decorative art by tool-marking and finger and nail impressions. Flint arrow-heads, showing traces of fire, are frequently found among these ashes, indicating how the person, whose body has been burnt, had met his death.

¹ Anderson: "Scotland in Pagan Times: The Bronze and Stone Ages," Edinburgh, 1886, p. 94.

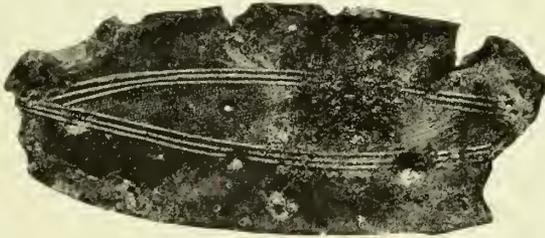
² *Proceedings of Society of Antiquaries of Scotland*, Vol. XLVIII., p. 373; and Vol. LXI., p. 269.

³ Anderson: "Scotland in Pagan Times: The Bronze and Stone Ages," Edinburgh, 1886, p. 136.

⁴ Kendrick: "The Druids," London, 1927, p. 191.

The remains are frequently associated with articles of grave goods. These burials are totally destitute of iron, but often contain cutting instruments of bronze, as well as large numbers of gold ornaments, earrings, necklets, arm-rings and lunulæ, elegantly fashioned. This epoch in Scotland corresponded to the age of gold celebrated by the ancient poets; for the people who generously deposited large numbers of these ornaments with the remains of their dead must have been able to obtain gold in large quantities, either from some now unknown native source or by bartering the fruits of their labour for that of other people.

Among the implements associated with this period are symmetrically-cast halberts, knives, spear-heads, broad-bladed daggers, shields, various tools and finely-tempered swords, formed from an alloy of tin and copper. Like the ancient Egyptians who, by a process of hammering, rendered their copper tools hard enough



BRONZE AGE RAZOR BLADE
from Musselburgh
(National Museum of Antiquities of Scotland)

to incise granite, the Bronze Age people in Scotland had discovered the art of causing these tools to take a sharp cutting edge. Admirably-shaped bronze tools for work in wood—such as chisels, gouges, planes, saws, etc.—have also been unearthed. Arrow-heads made of flint, which had been brought to great perfection in the Stone Age, were still universally used.

Flint knives were also found in this epoch, long after the knowledge of bronze had become general, and, as with other peoples of similar development, they were still probably used for purposes of ritual, such as sacrifices, or operations on the body.

A skull of the Bronze Age, which was found near Rothesay, in the Island of Bute, with an urn and necklace of jet, is preserved in the National Museum of Antiquities at Edinburgh. The skull has a trephine opening with bevelled edge, evidently formed by a process of scraping, presumably with a flint instrument. The bone shows evidence of healing, but the opening is surrounded by a ridge which has been caused by subsequent inflammation. The skull is that of a young woman.¹

Frequent examples have been found of a thin-bladed bronze instrument, apparently a razor,² which was perfectly adapted for surgical purposes. Certain bronze tools would also have been useful for the extraction of barbed arrow-heads. It is natural to conclude that, like the Egyptians of the 5th Dynasty at a similar

¹ See Parry: *Journal of the British Archaeological Association*, March, 1916.

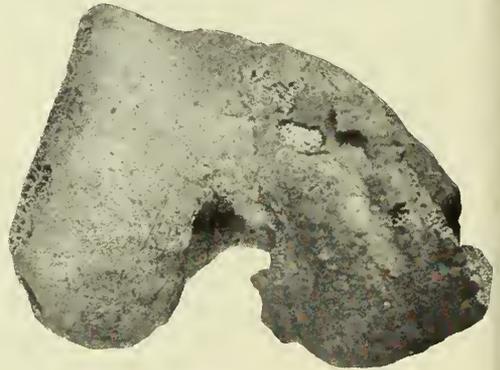
² Anderson: "Scotland in Pagan Times: The Bronze and Stone Ages," Edinburgh, 1886, p. 29.

developmental stage, the people inhabiting Scotland in the Bronze Age possessed the ability to treat fractured limbs by means of splints, although the climate of Scotland has not allowed the preservation of these as in the case of Egyptian burials.

Of the wounds which could be inflicted in battle, a striking example is recorded by Waterston. A short cist of the Bronze Age, discovered near Boarhills, Fifeshire, contained the skeleton of a man about sixty years old, five feet six inches in height, with round head, and a left hip which had been injured in youth. The bone



BRONZE AGE BATTLE WOUND
OF VERTEBRÆ



FEMUR AND TIBIA OF BRONZE AGE
showing osteo-arthritis

(Originals in Museum of Professor Stockman, Glasgow)

showed signs of chronic periostitis, a condition which was frequent in skeletons of the period. The teeth were much worn, showing that the food had been gritty and coarse. He had received two fatal wounds, one a crushing blow on the right side of the head, and the other a stroke from a sharp-edged weapon, such as an axe, which had missed the head but sheared obliquely into the cervical vertebræ, chipping off increasing portions of the spines from the second to the seventh cervical vertebræ, and the whole covering of the spinal cord from the upper three thoracic vertebræ.¹

Osteo-arthritis is very common in the skeletons of these pre-historic people, as it is in the bones of ancient Egyptian skeletons from a similar stage of cultural development.²

In the succeeding Age of Iron, weapons, of which the most important was a long, heavy sword, were fashioned of this material. The people now lived in huts, collected

¹ Waterston : *Proceedings of Society of Antiquaries of Scotland*, Vol. LXI., p. 30.

² Stockman : "Rheumatism and Arthritis," Edinburgh, 1920, p. 118.

for protection on the top of some precipitous hill, or upon platforms supported on piles embedded in the bottom of some surrounding lake. Warfare took the place of barter, and the healing of wounds naturally increased in importance. This age in Scotland began with that wandering of the peoples, which, in the east of Europe, corresponded to the Dorian invasion of Greece.

The history of Northern Britain begins when the Romans first came in contact with the Caledonians, Albiones, or Picts,¹ in the latter half of the 1st century of the Christian era. About 83 A.D. the Roman general Agricola² fortified the country between the Firths of Clyde and Forth, penetrated with his fleet into the estuary of the Tay, and gained a decisive victory over the Caledonians under Galgacus in Strathearn.

On this occasion, prior to the battle, the Caledonian tribes consecrated their confederacy by sacrifices. Such sacrifices are mentioned by Pliny as having been carried out by the Druids, who were the "medicine men" (*genus vatum medicorumque*),³ in the southern part of the island. It is reasonable to conclude that the Druids, who constituted a great brotherhood both in Britain and Gaul, with annual meetings in the latter country, exercised similar functions among the northern tribes. At a later date, St. Columba, in his visits to the pagan Pictish king, had trouble on various occasions with the Druids, this being the word in common use by the early Christian Scottish writers to designate the pagan "medicine men."

Druidic
medicine

More than 20 years before Agricola's victory, the head-quarters of the Druids in Britain had been destroyed by Suetonius Paulinus. The Druids made their last stand in Anglesey, where, with hands uplifted, clad in white, they invoked the gods and poured forth horrible imprecations on the Roman troops, inspiring these for a time with awe and terror. The religious groves, in which the Druids had been wont to sacrifice their prisoners upon the altars of their gods, and to inspect their entrails for divination, were destroyed.⁴

Edicts against the Druids and magic had been issued by several Roman emperors, but the Picts of the north were not influenced by these. We may assume that, whether the priests of the Caledonians are to be called Druids or by some other name, the place they occupied in society and the rites they carried out were much the same as those in the southern portion of the island. Cæsar states that in Gaul all important persons belonged to one of two orders—either the Druids or the Knights. The Druids conducted sacrifices, interpreted religion, determined controversies and were free from military service. They held the view that souls after death passed from one body to another. They gave instruction regarding the stars and their motion, the nature of things, and the power of the gods.⁵ Pliny, who wrote his "Natural History" at the time with which we are dealing, gives some account of the medicines and magical observances they used, and says that

¹ Skene: "The Highlanders of Scotland," London, 1836, p. 6.

² Tacitus: "Agricola," Ch. XXII.

³ Pliny: "Natural History," Bk. XXX., Sect. 13.

⁴ Tacitus: "Annals," Bk. XIV., Sect. 30.

⁵ Cæsar: "De Bello Gallico," Bk. VI., 13, 14, 16.

from the similarity of their practices to those of eastern peoples, the Druids of Britain might almost seem to have been the first to communicate them to the people of Persia.¹

The plant *samolus* (probably water pimpernel) was used by them as a preservative against infectious maladies in cattle. The person who gathered it was enjoined to do so with the left hand, to be careful not to look behind him, and to lay it in the troughs from which the cattle drank.

Pliny also speaks of the use made by the Druids of serpents' eggs as amulets, and he mentions the twining together of snakes which takes place in summer time, with the formation around their bodies of viscous slime which forms into rings. The legend of the serpent endured persistently in Gaelic literature and tradition. Knotted and entwined serpents formed the basis for one of the most striking features of Celtic decoration, which is seen constantly on sculptured Scottish stones and in illuminated manuscripts.

Great importance was attached to serpents' brew, which, granted that it was made of the proper serpent, was supposed to confer upon the person who tasted it universal knowledge. This is how Farquhar Leech (the healer), according to some Highland stories, is supposed to have got his knowledge of medicine.² "Snakes' eggs" among the highlanders of a later date were commonly held to be of great value, the egg being a bead of coloured stone or glass derived probably from some ancient grave. It has been suggested by Wilson that these supposed serpents' eggs were charms introduced as amulets among the early Pictish people by traders from the east.³ Kendrick suggests that the snake-stone was a fossil ammonite.⁴

The plant *selago* (probably club moss) was used by the Druids as a preservative against accidents, and the smoke of it was considered good for maladies of the eyes. It was gathered without the use of iron by the right hand passed through the left sleeve of the tunic, as though the gatherer were performing some furtive act. The clothing of the gatherer, too, had to be white, the feet bare and washed, and a sacrifice of bread and wine had to be made before the plant was collected. It was to be carried also in a new napkin.⁵

The Druids of Britain held nothing more sacred than the mistletoe and the oak tree which bore it. Their groves were formed of oak trees, and branches of this wood were employed in their religious rites. When the mistletoe was found upon the oak it was supposed to be sent direct from heaven, and was gathered with solemn rites upon the fifth day of the moon. The ceremony was preceded by a sacrifice of two white bulls. The priest cut the mistletoe with a golden sickle, and it was caught in a white cloak by others. Victims were also sacrificed. The mistletoe taken in drink was supposed to impart fertility, and to be useful as an antidote against all poisons.⁶

¹ Pliny: "Natural History," Bk. XXX., Sect. 4.

² Campbell: "Popular Tales of the West Highlands," Edinburgh, 1860, Vol. 11., p. 362.

³ Wilson: "Prehistoric Annals of Scotland," Edinburgh, 1851, p. 305.

⁴ Kendrick: "The Druids," London, 1927, p. 127.

⁵ Pliny: "Natural History," Bk. XXIV., Sect. 62.

⁶ Pliny: *Op. cit.*, Bk. XVI., Sect. 95.

Influence
of Ireland

The general condition of primitive medicine in Scotland, at all events in Dalriada (Argyll), which was largely populated by immigrants from Ireland, may be inferred from the records of ancient medicine in Ireland. The ancient Irish name for a physician was *liaig*, which is radically the same as the old English word *leech*.¹ Josina, the ninth legendary king of Scotland, who is reputed to have lived in the 2nd century B.C., was educated in Ireland by the native physicians, and is said to have composed a treatise on the virtues and power of herbs. Buchanan says that "he held Physicians in very high Esteem; because, when he was banished with his Father into Ireland, they had been his great Intimates. Whereupon the rest of the Nobility, complying with the Humour of the King, it came to pass that for many Ages there was scarce a Nobleman or Gentleman in Scotland, which had not the Skill to cure Wounds."²

The kings and great families of Ireland appear to have had hereditary physicians attached to them in the same way as in Scotland, and rules for practice in regard to fees, as well as fines for want of skill or of success, were laid down in the Brehon Laws. Records exist of the presence of leeches at battles in the 3rd century A.D. There are indications, at all events by the 7th century A.D., that the Irish physicians were specially skilled in medical botany, that hospitals for the reception of the sick existed, that cupping and other simple operations were commonly practised; and there is even a record that after the battle of Moyrath in 637 A.D., a young chief, Cennfaelad, whose skull was fractured by the blow of a sword, was trephined, had a portion of the skull and brain removed, and made so complete a recovery that he became a great scholar and jurist.³ The early Irish physicians were a subordinate class of Druids.⁴

Many of the heathen observances have doubtless come down in the medical folk-lore still to be found in country places and recorded in the popular medical works of the 18th century, including the sacrifice of different animals for various maladies, the administration of blood, bile and excrements as remedies, the wearing of coral necklaces, purification by dew and by fire at the feast of Beltane in May, etc.

Several of the standing stones in the centre and north-east of Scotland, erected by the Picts, are incised with symbols, among which the serpent frequently appears. Another constantly recurring symbol is the eye, or a pair of eyes, and various animals are vigorously represented. Many of these are repeated, from the 7th century onwards, in the monuments erected by the early Christian church. It would perhaps be fanciful to see in the symbols of the serpent and the eye a connection with the serpent of Asklepios and the eye of Horus, but Pliny's remark in the 1st century A.D. upon this subject is significant: "to such a degree are nations throughout the whole world, totally different as they are and quite unknown to one another, in accord upon this one point."⁵

Pictish
symbols

¹ Joyce: "A Social History of Ancient Ireland," London, 1903, Vol. 1, p. 597.

² Buchanan: "History of Scotland," Bk. IV.

³ Joyce: "A Social History of Ancient Ireland," London, 1903, Vol. 1, p. 620.

⁴ Simpson: "The Historical St. Columba," Aberdeen, 1927, p. 44.

⁵ Pliny: "Natural History," Bk. XXX., Sect. 4.

Tattooing

Tattooing was an important operation among the primitive northern peoples. The Picts occupying Scotland north of the Firth of Forth were celebrated by ancient writers for the manner in which, like the Goths, they decorated their bodies with various figures. These were tattooed with cinnabar and other pigments by means of sharp iron instruments.¹ According to Giraldus Cambrensis, the figures consisted of the scars produced by means of cauteries,² and Isidorus Hispaniensis speaks of the figures as produced by the minute punctures of a needle treated with the juice expressed from a native plant.³ As to the subjects represented, these included various objects, but especially the forms of animals.⁴

The skilful and vigorous manner in which the Picts portrayed animals, even in stone, can be seen on numerous monoliths which are found scattered throughout Pictland. These were apparently memorials marking the burial place of some family or chieftain, and it is reasonable to suppose that the sculptured objects are similar to those which in life were tattooed upon the bodies of the persons whom the stones commemorate.

Physique of the Picts

The hardy character of the Picts at the beginning of the 3rd century A.D. is described by Herodian, a contemporary Greek writer. In speaking of the campaign instituted by the Emperor Septimius Severus in 208 A.D., when this emperor, alarmed by the incursions of the northern people into Roman Britain, determined to conquer the part of the island north of the wall, Herodian says that



PICTISH ANIMAL PORTRAITURE
From Inverurie; a red granite slab four feet high

“his first care was to throw bridges across the morasses that his soldiers might be able to pursue the enemy over the dangerous places and have the opportunity of fighting on firm ground, for as a great part of the island is frequently overflowed by the tides, these constant inundations make the

¹ “Chronicles of the Picts and Scots,” Edit. by Skene, Edinburgh, 1867, p. 3.

² Giraldus Cambrensis: “De Instructione Principum,” 1214, in “Chronicles of the Picts and Scots,” Edit. by Skene, Edinburgh, 1867, p. 163.

³ Skene: “The Highlanders of Scotland,” London, 1836, p. 395.

⁴ Herodian: Hist., Lib. III., Sect. 14, In Severo.

country full of lakes and marshes. In these the barbarians swim or wade through them up to the middle, regardless of mud or dirt, as they always go almost naked. For they are ignorant of the use of clothes, and only cover their necks and stomachs with plates of iron, which they regard as an ornament and sign of wealth, and are as proud of them as other barbarians are of gold. They also burn into their bodies pictures like many coloured animals of all sorts (*Τὰ δὲ σώματα σίζονται γραφαῖς ποικίλων ζώων παντοδαπῶν εἰκόσιν*). This is one principal reason for their wearing no clothes, because they are loth to hide the fine paintings on their bodies, but they are a very warlike and fierce people, armed only with a narrow shield and spear and a sword hanging by their naked bodies, unacquainted with the use of breast-plates and helmets, which they think would be an obstruction to wading through the lakes and marshes of their country. These perpetually send up thick vapours which condense the air and make it always foggy.”¹

Dion Cassius, another contemporary writer, gives a similar picture of the Caledonians, and describes them as having small swift horses, running with great speed on foot, armed with a shield, short spear and dirk, capable of sustaining great fatigue and exposure, and able to subsist without hunger or thirst on a minute quantity of food. Although Severus continued his march throughout Scotland, he was unable to meet the Caledonians in open fight, but had finally to retreat behind the wall, having lost, by ambushes and the rigours of the climate, some 50,000 men.²

Compared with the superstitious practices of the native tribes, the medicine and surgery available for the Roman army and for those within the bounds of the Roman Imperium, show to the modern mind a striking contrast. In the first century of the Christian era the Roman troops had an ordinary medical officer for each cohort of 600 men, with higher medical officers for the legion. The wounded received first-aid, and were transported on waggons to military hospitals in the standing camps. Their wounds were dressed with astringent and antiseptic salves, in which salts of copper formed an active ingredient.

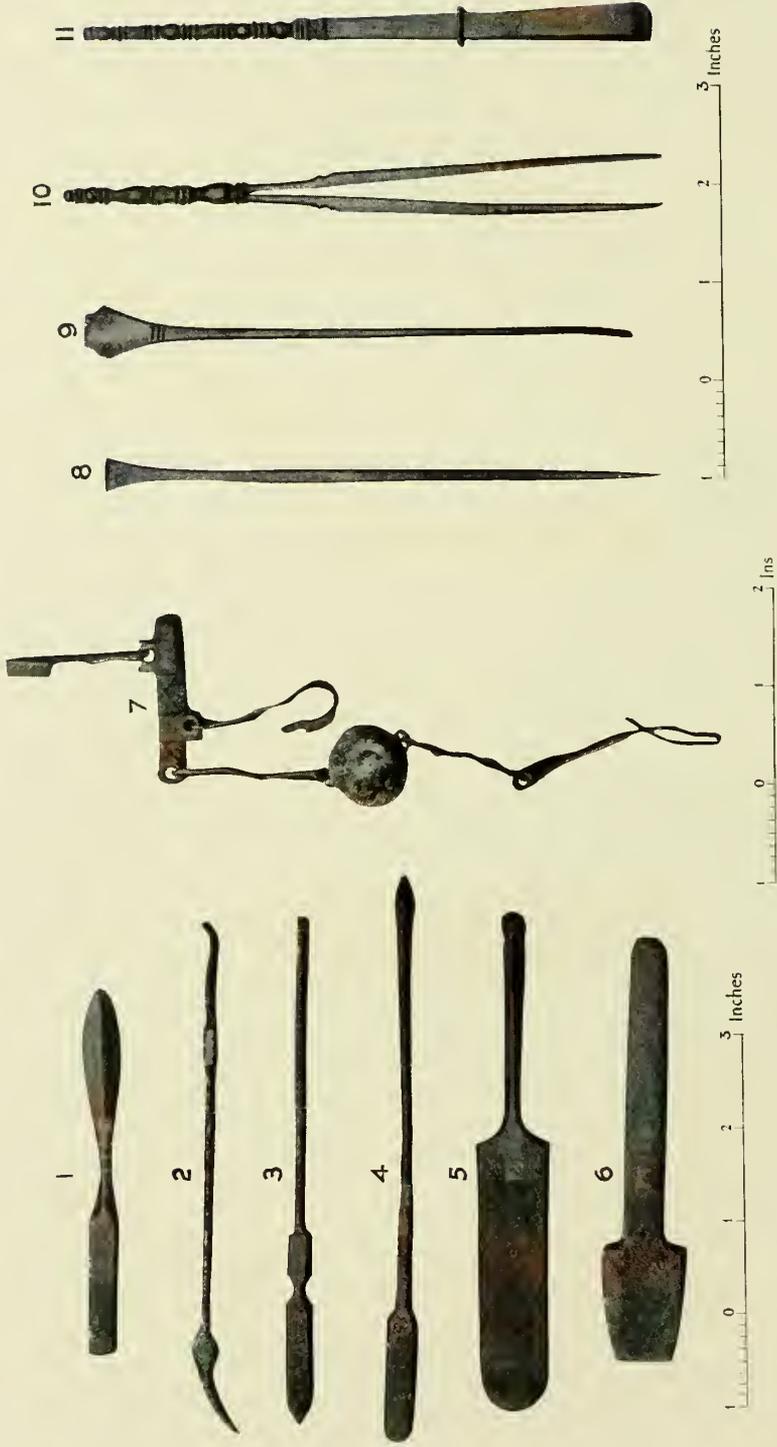
Roman
medicine
and surgery

Roman surgeons possessed a great array of finely-fashioned instruments with which they could skilfully operate and extract arrows and other missiles, and collections of these instruments have been found in many sites of settlements throughout the Roman empire. The surgeons operated with steel-bladed knives, performed amputations when necessary as high as the knee and elbow, and afterwards provided the patient with artificial limbs. In their operations, bleeding was arrested with the help of artery forceps and ligatures, and the edges of the wounds were carefully stitched together. Complicated operations, such as those for hernia and cataract, were regularly performed, apparently with excellent results.³

¹ Herodian : Hist., Lib. III., Sect. 14, In Severo.

² Dion Cassius : "Historiæ Romanæ," Lib. LXXVII., Severus.

³ See generally, A. Cornelius Celsus : "De Re Medica"; also Milne : "Surgical Instruments in Græco-Roman Times," Oxford, 1907.



ROMAN BRONZE SURGICAL INSTRUMENTS

Clerk of Fenwick Collection

1—Surgical knife handle: 2—Instrument with a sharp curved blade at one end and a small spoon at the other, suitable for opening and scraping out an abscess
 3-6—Cauteries: 7—Balance: 8 and 9—Probes: 10—Artery forceps: 11—Forceps with clip

(National Museum of Antiquities of Scotland)

A small collection of Roman surgical instruments, formerly in the possession of Clerk of Penicuik, is now shown in the National Museum of Antiquities at Edinburgh. Unfortunately, the name of the locality where these were found has not been preserved. The instruments include a knife handle of the usual Roman surgical form, of which the steel blade has perished, two pairs of simple forceps, probes, cauteries and a balance.

Among the treasure discovered at Traprain Law in 1915, which was apparently loot of the 3rd or 4th century derived from Gaul or Southern Britain, is included a medicine spoon



MEDICINE SPOON FROM TRAPRAIN LAW
(National Museum of Antiquities of Scotland)

with attachments for two small instruments on the handle. This has apparently been carefully preserved and presumably used by its Scottish possessors.

A Roman medicine stamp, found at Tranent in East Lothian, not far from the Roman settlement at Inveresk, is also shown in the National Museum of Antiquities. It was discovered among the debris of an old Roman house. The stamp is a flat piece of green steatite, some two-and-a-half inches in length, with

Roman practitioners



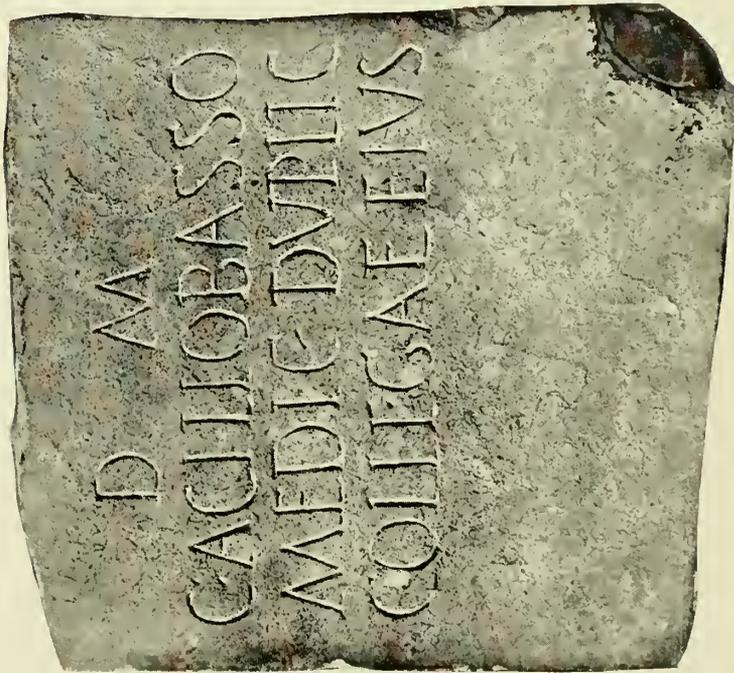
ROMAN OCULIST'S STAMP
from Tranent, East Lothian
(National Museum of Antiquities of Scotland)

inscriptions cut on the two sides. The inscriptions are reversed so that when stamped upon wax they would show in their proper form. The two inscriptions, when separated into the individual words composing them, read as follows:—

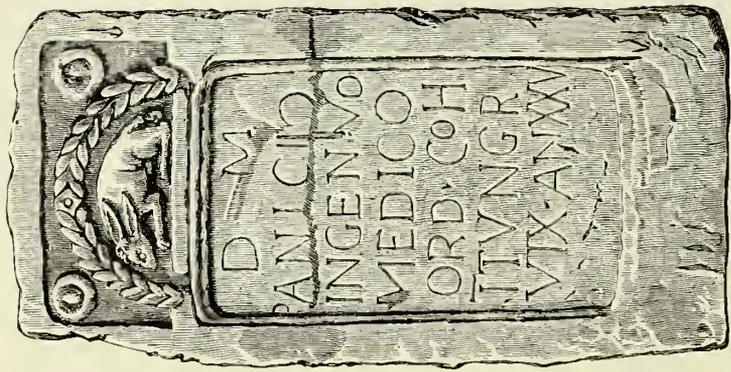
1. L VALLATINI EVODES AD CI-
CATRICES ET ASPRITUDIN
2. L VALLATINI APALOCRO-
CODES AD DIATHESIS ¹

The first of these is the evodes (aromatic application) of Lucius Vallatinus for cicatrices and granulations ; the second is the mild crocodes (collyrium of crocus) of Lucius Vallatinus for affections of the eyes. Lucius Vallatinus was apparently an oculist practising in the municipium of Inveresk during the Roman occupation.

¹ See Simpson : " Archæological Essays," Edinburgh, 1872, Vol. II., p. 239.



MEMORIAL TABLET OF CAIUS ACILLOBASSUS
 Medical Officer
 (National Museum of Antiquities of Scotland)



TOMB - STONE OF ANICIUS INGENVUS
 Medical Officer of the 1st Tungrian cohort
 (Museum of the Society of Antiquaries, Newcastle)

A memorial of medical practice among the troops and Roman colonists living on the frontier of Caledonia, at the beginning of the 3rd century A.D., is found in a commemorative tablet which was discovered about the year 1840 at Housesteads in Northumberland, the ancient permanent camp of Borcovicus, which was one of the principal stations on the wall erected by the Emperor Hadrian from the Tyne to the Solway. The tablet, according to the inscription upon it, was raised by the soldiers of the first Tungrian cohort to the memory of Anicius Ingenuus, their medicus ordinarius, who died on military service at the age of 25.

The Tungrians had distinguished themselves in 84 A.D. under Agricola at the battle of Mons Grampius.¹ The cohort was afterwards stationed at Castlecary in West Lothian, where the soldiers constructed a mile of the wall between the Forth and Clyde.² Subsequently it was stationed at Cramond, a suburb of modern Edinburgh, where the soldiers raised an altar.³

The inscription, with its extension and translation, reads as follows:—

D	M	D(IIS) M(ANIBUS)
ANICIO		ANICIO
INGENUO		INGENUO
MEDICO		MEDICO
ORD COH		ORD(INARIO) COH(ORTIS)
I TUNGR		(PRIMAE) TUNGR(ORUM)
VIX AN XXV		VIX(IT) AN(NOS) XXV. ⁴

To the gods of the shades below and to Anicius Ingenuus, Physician-in-Ordinary to the first cohort of the Tungrians. He lived twenty-five years.

Another memorial tablet, erected by his comrades to C. Acillobassus, a medical officer who was in receipt of double pay for seniority or special services, is preserved in the National Museum of Antiquities. This is a tablet, 10¼ inches by 9 inches in size, which belonged to Sir J. Y. Simpson, and was by him presented to the museum, but unfortunately there is no record as to the place where it was found. It bears the inscription:—

D	M	D(IIS) M(ANIBUS)
C ACILLOBASSO		C(AIO) ACILLOBASSO
MEDIC DUPLIC		MEDIC(O) DUPLIC(ARIO)
COLLEGAE EIUS		COLLEGAE EIUS

To the gods of the shades below and to Caius Acillobassus, Medical Officer on double pay (erected by) his comrades.

¹ Tacitus : " Agricola," Ch. XXXVI.

² Stuart : " Caledonia Romana," Edinburgh, 1845, p. 340.

³ Horsley : " Britannia Romana," London, 1732, p. 204.

⁴ See Simpson : " Archæological Essays," Edinburgh, 1872, Vol. II., p. 213.

A large number of the drugs used in modern times were then employed in prescriptions, which seem generally reasonable, although sometimes fantastic and superstitious.

Roman
remedies

The remedies used by the Romans at this time may be gathered from numerous writers, such as Celsus, Pliny and Scribonius Largus. Scribonius Largus is of special interest, as he accompanied the expedition of the Emperor Claudius to Britain in 43 A.D. in the position of a military medical officer.¹ His work on the compounding of medicines, which was composed as he was leaving Rome, was probably written for the purposes of this expedition. The book contains 271 prescriptions for the preparation of remedies against various complaints—some simple, some complicated. Their high reputation is indicated by the fact that Galen, a century and a half later, includes many of them among the prescriptions given in his works.

Such substances are mentioned as acacia, aconite, aloes, anise, belladonna, cardamoms, cedar-wood oil, costus, crocus, dill, gentian, ginger, iris, juniper, linseed, liquorice, male-fern root, mistletoe, mustard, myrrh, olive oil, opium, pepper, rose, rosemary, resin, rue, santonica, squills, turpentine, valerian, vinegar and yeast. Among mineral remedies are alum, chalk, copper salts, preparations of lead, iron, sal ammoniac, silver salts, soda and sulphur. Among the animal remedies are included blood, castor, cantharides, white of egg, fat, hartshorn, millipedes, ox bile and wax.²

Since the southern part of the present Scotland to the fortified line between the Firths of Forth and Clyde was, about 83 A.D., firmly held by the Romans, this type of medicine was available for the people of Lothian, and many of its traditions no doubt remained in southern Scotland after the Romans had passed away. It is not likely, however, that the Picts of the north, who fell into the hands of the Romans as severely wounded, and therefore useless prisoners, received more charity from their conquerors than the *coup de grâce*, and in this connection the remark of Galgacus to his troops is significant: "they have made the world a solitude and call it peace."

After the first century of the Christian era it is not surprising to find traces of foreign medicine or of exotic religious beliefs in the remotest corners of the Empire. Medicine and religion were carried by the recruits to the frontier guards throughout the length and breadth of the Empire, from Syria to Caledonia and from Germany to Africa.

Medicine in the southern part of Scotland has always remained more "orthodox" than elsewhere, and this may be attributed perhaps to the survival of Roman tradition among the descendants of the legionaries, and of the native population who had come under Roman influence.

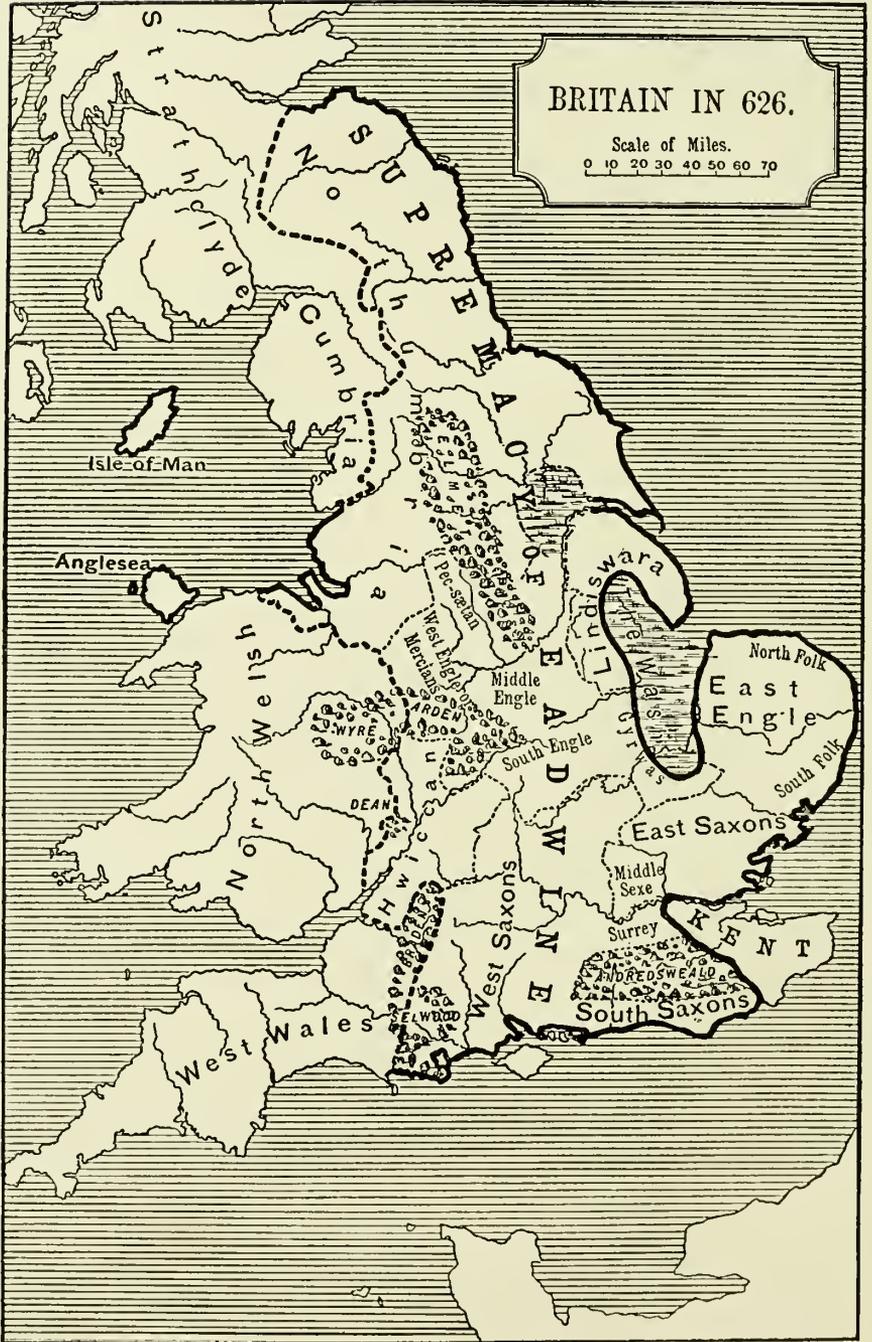
¹ "Die Recepte des Scribonius Largus," Schonack, Jena, 1913, p. 2.

² Comrie: "Scribonius Largus, De Compositione Medicamentorum," *Medical Life*, April, 1922.

Camden, writing in the 16th century concerning the Roman Wall in Cumberland, says on the matter :—

“ I purposely omit the vulgar reports about this wall, but cannot conceal from the reader this circumstance, which I had from persons of credit. A fixed tradition remains in the neighbours, that the Roman garrisons on the borders planted here up and down for their own use, many plants good for curing wounds. Hence some pretenders to surgery in Scotland resort here every summer to collect plants, whose virtues they have learned by some practice, and extoll them as of sovereign efficacy.”¹

¹ Camden : “ Britannia,” trans. by Gough, London, 1789, Vol. III., p. 214.



MAP OF BRITAIN IN 626 A.D.
to show social connections of southern Scotland

(After Green)

CHAPTER II

MEDICINE OF THE EARLY CHRISTIAN AND SAXON PERIOD

ALTHOUGH the Roman frontier had been withdrawn southwards to the line from Tyne to Solway before Christianity was adopted by Constantine as the official religion of the Empire, there were many missionaries and converts to this faith in the region between the southern line and that of the Forth and Clyde. St. Ninian, the apostle of the northern Britons and the Picts, had founded the first Christian settlement at Whithorn in Galloway in 397 A.D., while southern Britain was still a Roman province.¹ These Christianised Picts, Scots and Britons probably preserved much medical as well as religious tradition.

St. Columba (521-597), and some of the more learned Culdee missionaries, in addition to a knowledge of Christian doctrine which they introduced to western Scotland, undoubtedly possessed some acquaintance with the medical lore of the ancients, which was to be found among manuscripts in the libraries of the wealthier religious houses of other countries. Legends of the early saints indicate that some of their influence was due to their powers of healing, although, in the popular belief of that day, these powers are usually credited with a supernatural or miraculous origin. Culdee
medicine

The Monastery of Iona, founded by St. Columba in 563 A.D., as described by incidental references in Adamnan's life of the saint, was a primitive institution where the brethren lived in individual cells built of wood round a little court. The church and monastic buildings were surrounded by a wall, and there were a kiln, a barn, mill and refectory in which the daily tasks and social intercourse of the monks were carried out. The settlement included a hospitium built of wood and wattle, where guests of the monastery and the sick who visited it were entertained and treated by simple means.²

Laisran Mocumioie,³ a holy man and a gardener (*hortulanus*), was brought from Ireland at the command of St. Columba, and spent the remainder of his days in the monastery at Iona. He presumably grew the herbs from which were prepared the physical means of healing (*medicamenta carnalia*) that were used by the monks. On one occasion a pilgrim came to the monastery and asked a cure for a disease of his body. St. Columba's comment was characteristic, that it would have been better for him to have true penance for his sins, for at the close of the week he would die. Nevertheless, he was given the remedies he had asked and departed quickly, but before the end of the week, according to the prophecy of the saint, he was dead.⁴

¹ Simpson : "The Historical St. Columba," Aberdeen, 1927, p. 2.

² Skene : "Celtic Scotland," Edinburgh, 1887, Vol. II., p. 97.

³ Adamnan : "Life of St. Columba," Edit. by Reeves (*Historians of Scotland Series*), Edinburgh, 1874, Lib. I., Cap. XII.

⁴ Adamnan : *Op. cit.*, Lib. I., Cap. XXI.

Remedies used

There is no mention, apart from spiritual means, of the remedies employed in healing, but the simple kind of medicines used may be inferred from the plants which were contained in the garden of the Monastery of St. Gall.

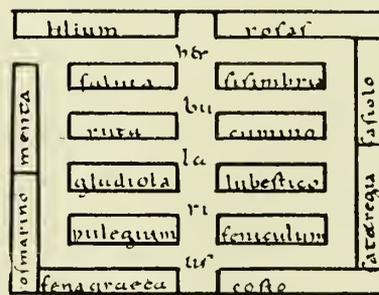
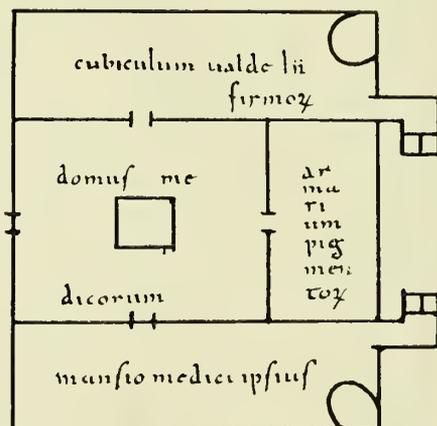
Each monastery of the early church possessed, in addition to its library containing copies of Latin translations of ancient books, mainly devotional, and sometimes medical, a physic garden where simples were cultivated, and an infirmary or hospitium, or both, where the sick were treated and guests entertained. The kind of herbs used by the early monks in preparing remedies may be learned from the list of those grown in the 9th century at the monastery founded by St. Gall, a Scottish or Irish hermit who, in 614 A.D., built a cell in the thick forest which then covered the Swiss canton that now bears his name.

The medicinal plants were rose, bean, savory, costus, hedge mustard, cumin, fennel, lybisticum, lily, sage, rue, gladiola, pennyroyal, mint, rosemary and fenugreek. Alongside the garden was a small building which contained a house for the medicus, a room for those who were very sick (*valde infirmi*), and a dispensary where the remedies were kept. A plan of the little garden and building is given in a chart of the monastery buildings prepared by a monk in the year 820 A.D.¹

Healing-stones, or amulets, had been a favourite method of cure among the pagan peoples of Scotland, and these, as well as many other heathen devices, were adopted by the teachers of Christianity, who gave to them a Christian significance.

Cures by St. Columba

Thus, on one occasion, St. Columba picked from the river Ness a white stone, by which he said God would effect the cure of many diseases. This stone he sent by two of his disciples to Brude, the pagan king of the Picts, who had requested him to cure his foster-father, Broichan the Druid, then lying in a dying state. The stone was immersed in water, when, contrary to the laws of nature, it floated on the water like a nut or apple and could not be submerged. Broichan drank of the water in which the stone was floating, and immediately recovered perfect health and soundness of body. The stone was afterwards preserved among the treasures



PLAN OF HOSPITAL AND PHYSIC GARDEN AT THE MONASTERY OF ST. GALL
From a chart of the 9th century

¹ Keller: "Bauriss des Klosters St. Gallen vom Jahr 820," Zurich, 1844.

of the king, retained its miraculous property of floating in water and, as the chronicler says: "through the mercy of God, effected the cure of sundry diseases."¹ The stone was possibly a piece of ambergris.

Many other cures are recorded of this saint. Bleeding from the nose of Lugneus Mocumin was cured when the saint pressed this patient's nose with his fingers. An epidemic of ulcers, supposed to be due to pestilential rain, was stayed when the sufferers were sprinkled with water in which bread, blessed by St. Columba, had been dipped.² The broken thigh of a saintly virgin, Maugina, was similarly healed by water in which blessed bread had been dipped, although it is probable that some other physical means were also employed. Many instances are recorded in which the saint by his powers saved various disciples from death, stayed a plague in the land of the Picts and performed other wonders. A spring in the country of the Picts, which had been blessed by St. Columba, and in which his hands and feet had been washed, was afterwards much visited by the sick, whose diseases it cured.

In early Scotland, one of the favourite curative agents was found in springs. The well, which was blessed by St. Columba, had previously been a place of resort by the pagan Picts, who had dreaded and worshipped a malignant spirit contained in its waters. The early Christian fathers in a similar way converted many other springs to the purposes of the Christian faith. It was natural, too, that an early Christian missionary to the Picts should establish his solitary cell beside a spring; and these springs, in various parts of the country, became therefore identified with the names of special saints. In some instances the springs contained medicinal substances; in the case of others the spring discharged pure water. From the earliest times in many places sick people betook themselves, for the purpose of being healed, to these springs, rivulets and pools, to which a saintly character was attached.³

Healing wells

To this class of wells belong the following:⁴ The Well of St. Marnoch, a 7th century missionary, was venerated at Aberchirder in Banffshire. Another Culdee of the same century, St. Donan, had a well in the parish of Kildonan, Sutherland, where he preached Christianity, and another in the island of Eigg, where the saint was murdered. St. Mungo, or Kentigern, a missionary in Strathclyde, had a well and spring beside the Molendinar, below the spot where Glasgow Cathedral stands, in which he bathed and which was later consecrated to his memory. Various traditions in regard to him are still commemorated in the arms of the city of Glasgow.

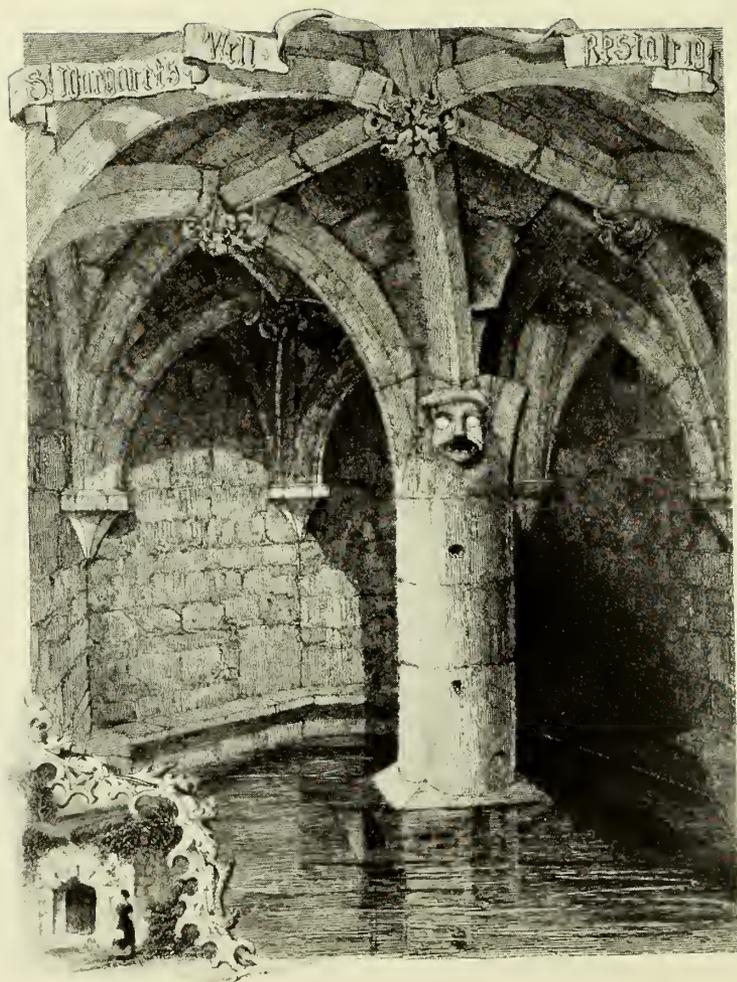
At Holy Island, guarding Lamlash Bay, was a cave inhabited by the hermit Mollo, and in its neighbourhood is a holy well for many centuries reckoned efficacious in the cure of disease. St. Fillan, the "leper," was a teacher of the 6th century of peculiar sanctity, specially celebrated in the cure of disease.

¹ Adamnan: "Life of St. Columba," Edit. by Reeves (Historians of Scotland Series), Edinburgh, 1874, Lib. II., Cap. XXXIV.

² Adamnan: Op. cit., Lib. II., Cap. IV.

³ Mackinlay: "Folklore of Scottish Lochs and Springs," Glasgow, 1893, p. 24.

⁴ Mackinlay: Op. cit., p. 72.



ST. TRIDUANA'S OR ST. MARGARET'S WELL

The well-house was removed about 1860 from its original site at Restalrig to its present position south of Holyrood, where it covers another sainted spring, known as St. David's or the Rood Well

His spring at the foot of Dunfillan Hill, near Comrie in Perthshire, was much frequented even up to the 18th century, while to repose in his seat on the hill was regarded as a cure for rheumatism. He is not to be confounded with the other St. Fillan, of Glendochart, whose pool, bell and crozier also had miraculous properties.

Most parishes, indeed, in early days in Scotland were possessed of one or more of these holy pools or wells, to which resort was more or less commonly made for their healing virtues down to quite recent times. A more striking instance could hardly be given of the persistence of an ancient belief through all the changes in the form of religion and all phases of advancing intelligence and rationalism.

The following list of the principal holy wells in Scotland is given by Anderson¹:—St. Adamnan's at Dull and Forglen; St. Aidan's at Menmuir, famed for the cure of cutaneous diseases, and St. Aidan's at Fearn; St. Baldred's well and pool at Prestonkirk; St. Bride's wells at Dunsyre and at Beith; St. Comb's well at Menmuir; St. Colman's at Kiltearn; St. Caran's at Drumlithie; St. Columba's in Eilan na Naoimh and in Eigg; St. Fechin's or St. Vigean's at Grange of Conon in Forfarshire; St. Devenick's at Methlick; St. Donan's in Eigg; St. Ethan's at Burghead; St. Fergus's at Glamis; St. Fillan's at Struan, St. Fillans, Largs, etc.; St. Mair's at Beith; St. Irmie's at Kilrenny; St. Mungo's (Kentigern's) at Penicuik and Peebles; St. Maelrubha's on Innis Maree, famed for the cure of insanity; St. Marnock's at Aberchirder; St. Mirrin's at Kilsyth; St. Medan's at Airlie; St. Modan's at Ardchattan; St. Moluag's at Mortlach; St. Muriel's at Rathmuriell in the Garioch; St. Nathlan's at Old Meldrum; St. Nimian's at Lamington, Arbroath, Stirling, etc.; St. Patrick's at Muthil; St. Ronan's at the Butt of Lewis, famed for the cure of insanity; St. Serf's at Monzievard, frequented for the cure of various diseases; St. Wallach's in the parish of Glass, Aberdeenshire, till lately resorted to as a place of pilgrimage.

Principal
Scottish
holy wells

One of the most famous wells was that of St. Triduana, at Restalrig, near Edinburgh. St. Triduana was a recluse of the primitive church, whose tomb after her death became a shrine for pilgrims afflicted with eye diseases. In early life, her beauty had attracted a Pictish chief from whom she fled, and, being pursued by his emissaries, she plucked out her eyes and sent them to him impaled upon a thorn, as they had been the cause of his unwelcome attentions.

For many centuries the well at Restalrig, afterwards called St. Margaret's Well, was the resort of those who, in the words of Sir David Lindsay, went to "St. Trid well to mend their ene." So hard does tradition die that even now (1927) people with eye disorders frequently come with bottles to collect the water, despite the fact that the ancient well-house has been removed to another spring (St. David's or The Rood Well) about a mile distant, close to Holyrood.

¹ Anderson: "Scotland in Early Christian Times," Edinburgh, 1881, p. 193.

Bells of
saints

Various relics of saints in Scotland, as in other countries, formed an important set of objects associated with healing. The Celtic church in Scotland and in Ireland was, however, notable for a type of relic not found elsewhere in the Christian church. This consisted in the enshrinement of the bell which had belonged to a particular saint. The bronze bells still preserved in Scotland belonged to St. Fillan of Glendochart, to St. Adamnan or Eunan, long preserved at Insh, and to St. Finan, which lay on a tombstone on Finan's Isle in Loch Shiel.

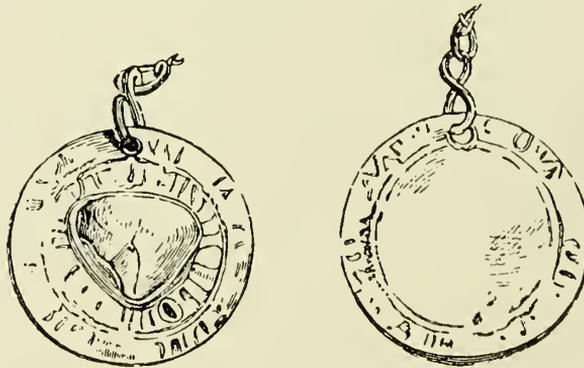
At the shrine of St. Fillan (an 8th century abbot and recluse), near Tyndrum, a form of treatment was used, especially for lunacy, which resembled the incubation in the temples of Asklepios. The mentally afflicted person, after being dipped in a sacred pool, was bound and laid on the floor of the church or in a stone coffin overnight, the bronze bell of St. Fillan, a sacred relic, being placed beside him or on his head. If in the morning he was found free from his bonds, recovery from the madness was likely to take place. Those who recovered sometimes related visions that had appeared to them in the night.¹



THE BELL OF ST. FILLAN
(Preserved in the National Museum of
Antiquities of Scotland)

Amulets

Various celebrated amulets were also used for mediæval treatment, chiefly by administering to a sick person water in which the relic had been immersed. One of the most celebrated of these charms was the Lee Penny, a



THE LEE PENNY

small red stone set in a silver coin, said to have been brought from the Holy Land by Sir Simon Lockhart, of Lee, and celebrated as "The Talisman" in Sir Walter Scott's novel of that name. This charm was used by drinking of,

¹ Anderson: "Scotland in Early Christian Times," Edinburgh, 1881, p. 192.

or bathing with, water in which it had been dipped three times. Balls of rock crystal, one known as the "stone of the standard," possessed by the Chief of the clan Donnachie, another known as the stone of Ardvairlich, in the possession of the family of that name, and others belonging to the families of Campbell of Glenlyon, Baird of Auchmeddan, and others, have been used in a similar manner from very early times.

The district of Lothian, which included not merely the counties of Linlithgow, Edinburgh and Haddington, that bear the name at the present day, but also Roxburgh, Berwick and Upper Tweeddale, formed, with intervals of freedom, from the 7th century onward, part of the Anglian kingdom of Northumbria. About the middle of the 10th century, Edinburgh, an important frontier stronghold, was captured¹ and afterwards retained by the northern people, who had come to be known collectively as the Scots; but it was not until 1018 that Malcolm II. extended the territory of Scotland to the river Tweed. Up to the latter date, therefore, the southern part of what is now Scotland was permeated by Saxon influences in medicine as in other things.

Anglian
influence in
medicine

Bede, the Northumbrian historian, gives an account of the leech Cynifrid, who, in 679 A.D., opened an abscess for Aethelthryth, queen and abbess, who had taken the veil at Coldingham in Berwickshire.² The Saxon leeches were, in their early practice, apparently almost wholly restricted to the use of the lancet for bleeding and opening abscesses, with, in addition, herbs derived from field and garden. They also had great recourse to incantations and charms of all sorts, sometimes of a Christian character, at other times apparently from an ancient pagan source.

Cynifrid
the leech

The story of Cynifrid illustrates several aspects of the early Christian views as to disease and healing. The saintly Aethelthryth, or Audrey, attributed the trouble in her neck to the fact that, as a young maiden, she had borne on it the needless weight of gold and pearl necklaces, and now suffered that she might be absolved from the guilt of early levity. After the abscess had been opened and much noxious matter let out, the patient was easier for two days, but on the third she became worse and was quickly snatched out of the world.

Sixteen years later it was decided to place her bones in a sarcophagus for preservation in the church at Ely, and Cynifrid was present at the exhumation. To the wonder of all, the body was found free from corruption, and Cynifrid ingeniously explained this by the spiritual idea that though the saint had been twice married, she had preserved always a voluntary virginity. The coffin, as he recorded, in which the body had been buried, cured infirmities of the eyes in some who prayed with their heads resting on the coffin, while the touch of the linen wrappings expelled devils from bodies that were possessed.³

Egfrid, the second husband of this saint, had important relations to Scotland, for in 685 A.D., leading the Northumbrian army to attack the Picts, against the

¹ "Chronicles of the Picts and Scots," Edit. by Skene, Edinburgh, 1867, p. 10.

² Cockayne: "Saxon Leechdoms" (Master of the Rolls Series), London, 1864, Vol. I., p. xxvi.

³ Bede: "Ecclesiastical History of England," Lib. IV., Cap. XIX.



VIEW OF TWEEDSIDE FROM BEMERSYDE
Old Melrose, the site of St. Cuthbert's Monastery, stood on the promontory in foreground
From a drawing by Thomas Scott, P.S.A. in the possession of James Crichton, Esq., LL.D.

advice of St. Cuthbert, he fell into an ambush at Nectansmere or Dunnichen, near Forfar, and was slain with most of his forces. Thus the Picts, the Scots of Dalriada (Argyll), and the Britons (of Strathclyde) regained their liberty from the Angles of Northumbria.¹

Various incidents in the life of St. Cuthbert (635-687) are connected with the healing of the sick. It appears, from several incidental references in Bede's life of the saint, that physicians, who were apparently numerous in the Northumbrian monasteries and were possessed of medical knowledge through the possession of medical manuscripts, regularly treated the sick in and around the monasteries. On one occasion, after St. Cuthbert's death, a paralysed man who could move only his mouth, was brought to Lindisfarne from a neighbouring monastery. Medical remedies were first tried by skilful physicians (*medicos peritissimos*) in the monastery of Lindisfarne, without avail; but it is recorded that, after the dead saint's shoes had been put upon the sick man's feet, his legs recovered their power in a single night.² Very often, as in this case, treatment by physicians was ineffective and recourse was had to spiritual means of healing.

Cures by
St. Cuthbert

St. Cuthbert himself, in early life, had been laid up by chronic swelling of the knee with contraction of the sinews in the ham, which made him lame and ultimately prevented him from walking at all, nor could all the efforts of the physicians (*nulla medicorum industria*) effect a cure. The trouble in the knee was finally relieved by the application of a poultice of wheaten flour boiled in milk, a method of treatment which was suggested to him by a passing stranger,³ afterwards supposed to have been an angel.

Whilst a boy, he acted as a shepherd on the Lammermoor hills and by the banks of the river Leader, but, in 651 A.D., becoming enamoured of the monastic life, he betook himself to the Abbey of Old Melrose.⁴ Here, some ten years later, he was seized with the pestilence of which many inhabitants of Britain at the time were sick. This was an epidemic of bubonic plague, and St. Cuthbert developed the usual swelling in the groin, which unfortunately burst inwards, so that he suffered from the effects of this for the rest of his life. The monkish physicians were able clearly to distinguish this disease, because it is recorded that Boisil the priest died of this plague, which was raging in the monastery, but the abbot died of the disease which the physicians called dysentery.⁵

The chronicler laments that in the time of severe mortality many of the people disgraced the faith that they professed by having recourse to idolatrous remedies, "as if by charms and amulets, or any other mysteries of the magical art, they were able to avert a stroke inflicted on them by the Lord." St. Cuthbert was very active in correcting these errors by preaching in the neighbouring villages.⁶

¹ Bede: "Ecclesiastical History of England," Lib. IV., Cap. XXVI.

² Bede: "Vita S. Cuthberti," Cap. XLV.

³ Bede: *Op. cit.*, Cap. II.

⁴ Bede: *Op. cit.*, Cap. VI.

⁵ Bede: *Op. cit.*, Cap. VIII.

⁶ Bede: *Op. cit.*, Cap. IX.

roq̄antes ut ad accipiendā benedictionē ad
 se h̄c afferri p̄mitteret. Quē cū ad se p̄ductū
 acerrime ueracū ēspiceret: iussit om̄i sece-
 dere longq̄. Et ad solita orationis arma cōsu-
 gnat: data benedictione pepulit peste. quā
 sollicita medicorū manū pugnatorū copositiōe
 nequirit. Deniq; eadē hora surgens: & accep-
 to cibo cōfortat: reddita dō gratū actione re-
 gressus ē. ad eas que sepositauerant feminas.
Sicq; factū ē: ut que eū illo tristes languidū
 aduerterant: cū eis inde gaudentib; & ipse
 sospes ac letabund' donū rediret. xxxiii.



OMO EPIRE pestilencia subito exorta uis
 in partib; grauissima nece incubuit. ita ut
 in magnū quāda p̄fectisq; habitacōribus

ST. CUTHBERT'S CURE OF CHILD DYING FROM PLAGUE
 Drawing of early 12th century

mitate donū redit. ac stabilior iā ex illo
 tēpore animoq; adoleſcentior exiſtere ce-
 pit illo nimis ū ſpū interi' ei p̄cordia
 docente: q̄ p̄ of infantis exa mſec' cīam
 b; mōnuit. Nec mirandū euq; par uult
 laſciua p̄ paruulū potuiſſe dño agere
 cohiberi. q̄ adhibendā p̄phē inſipien-
 tiā ore ſubugalis muta racionabilia
 uerba cū uoluit edidit. me uſ laude ue-
 ritate dictū eſt: qz ex ore infantū & lactan-
 tū perfecti ſi laudem.



HEALING OF ST. CUTHBERT'S KNEE BY STRANGER
 Drawing of early 12th century

Case of
hysteria

An interesting case was that of the wife of Hildemer, a prefect of King Egfrid, who was devoted to almsgiving and good works, and frequently entertained St. Cuthbert. This lady on one occasion, affected perhaps by some household discord, or by the monotony of life, was suddenly seized with an hysterical attack or, in the language of the early church, "afflicted with the devil," and fell down, gnashed her teeth, emitted miserable cries, and threw about her arms and legs so that she struck with horror all those who saw and heard her.

The husband came in haste for St. Cuthbert, but was ashamed to tell him of the demoniacal possession, and simply asked for his aid in the sudden illness of his wife. St. Cuthbert, however, perhaps from his knowledge of the lady's temperament, divined the malady, and as they went to Hildemer's house he assured the grieving husband of her speedy recovery. It is recorded that on the saint's approach she got up at once and took the bridle of his horse with joy, the evil spirit having fled.¹ On a subsequent occasion, Hildemer himself was cured of internal pain by drinking water containing bread which had been consecrated by St. Cuthbert.²

An instance of spiritual healing, which is of great importance because it illustrates the attitude of the early church towards miracles, is recorded regarding the cure of Ellfed, sister of King Egfrid, an abbess of a nunnery on Coquet Island. The abbess had been ill for a long time despite the ministrations of physicians, and was so bent, apparently with rheumatism, that she was reduced to going about on all fours. She obtained a linen girdle of St. Cuthbert, put it on, and shortly was recovered. A nun was afterwards successfully treated for headache by having the girdle wrapped round her head. The girdle was then put away in a chest, but miraculously disappeared.

It is explained by the venerable chronicler that Divine Providence had ordered this, so that after the sanctity of the saint had been established by two miracles,



RECOVERY OF HYSTERICAL WOMAN ON
ARRIVAL OF ST. CUTHBERT

(From 12th century MS. executed in Durham Priory.
British Museum, Additional MS. 39943)

St.
Cuthbert's
girdle

¹ Bede : "Vita S. Cuthberti," Cap. XV.

² Bede : Op. cit., Cap. XXXI.



Quodam q̄q; t̄p̄e dñi sc̄ssim̄ ḡr̄eḡis d̄nic̄i
 pastor̄ sua lustrando circumiret ouilia:
 deuenit in montana & agrestia loca ubi
 multa erant decur̄u posit̄is lace uillul̄is
 q̄b; man̄ erat ip̄onenda. Nec tñ in montib;
 cec̄sa ut loc̄ inueniri poterat ap̄e. q̄ p̄ona
 sic̄e cū suo cornicatu sc̄ss̄p̄ec̄. T̄c̄nderunt
 ḡi t̄n̄c̄ua m̄ua. & c̄ss̄s̄ de uena silua
 i am̄u sc̄ss̄: sibi q̄q; tab̄n̄ac̄ā ad manendū
 q̄ia potuer̄e firer̄e. Vbi dñi c̄ss̄uenc̄ib; ad
 se cur̄s̄ ur̄ dñi ūb̄ā b̄id̄uo p̄dicaret. ac sp̄i
 sc̄i gr̄ām n̄q̄p̄ r̄eḡenerat̄is in x̄p̄o p̄man̄
 ip̄ositionē inūst̄r̄er̄e: ecce subito appa
 ruer̄t mulier̄es ferentes in gr̄ub̄. ito iuue
 nē t̄n̄ge egr̄itudinis acerb̄itace tab̄efactū.
 Ponentesq; in exitu silue. miser̄t̄ ad ep̄m

lce. s; iure inq̄r̄ ē. cenobitarū uita uiuanda.
 q̄ abbas p̄ om̄ia subicunt̄ ip̄ns. ad ei arbi
 tr̄i cuncta uigilandi. orandi. ieiunandi.
 acti; op̄andi t̄p̄ora modānē. quoz pluri
 mos noui paruitatē meā lonq̄e & mundi
 cia m̄tis & culame q̄y p̄ph̄alis ante ire.
 Q̄q; ē. uenerabilis & cū om̄i honozificencia
 nominand̄ seruus x̄pi boūsilus. q̄ me in
 maistr̄ofensi monasterio q̄ndā senex ad
 olecentē nut̄iebat. & inē enūt̄rendū
 cuncta que in cr̄ane uen̄cā p̄ph̄etica uer̄i
 tate p̄d̄ir̄it. & un̄ic̄ant̄ū modo restat. ex
 om̄ib; ab eo in p̄dic̄is. q̄ uenā n̄q̄m̄ in
 p̄icat̄. hoc aut̄ dicebat q̄ p̄fat̄ x̄pi famul̄
 ep̄atu ēu gradu significabat t̄e sancturū.
 cui p̄ceptione ip̄e n̄ parū desidio uic̄e. se
 cretior̄ horreb̄at. xxiii. | uoni x̄ss̄es.
 abbas & puella ei p̄zona ip̄i sint. s̄uare.



“all occasions of doubting should be removed from the incredulous, for, if the girdle had remained, all those who were sick would have gone to it and, whilst some of them would be unworthy of being cured, its efficacy to cure might have been denied; whereas their own unworthiness would have been to blame.” It was evidently recognised that the benefit to be derived from saintly persons and holy things depended also upon the faith and worthiness of the person who was being treated.¹

The physicians apparently used external applications as well as internal remedies, for the case is recorded of a young man who was cured of the pestilence by prayer, after treatment by the physicians had proved ineffective. This young man was carried on a bed by some women, who approached the saint as he was preaching among the mountains. The physicians had painted various substances over the ailing parts (*pepulis pestem, quam sollicita medicorum manus pigmentorum compositione nequiverat*), but the patient was still wasted by illness. After receiving St. Cuthbert's blessing, he was able to walk back with the women who had brought him.²

Failure of
physicians

On one occasion, as St. Cuthbert was passing southwards after a visit to Melrose, he was asked to turn aside to a certain house and give his blessing to a servant who was afflicted with such pain that he appeared to be more like a man dying than sick, breathing only a little through his mouth and nostrils. St. Cuthbert blessed some water and ordered it to be given to the sick man to drink. After three doses of this the patient fell asleep, passed the night in silence, and appeared quite well in the morning.³

Even after the death of the saint his reputation was so great that, as the venerable chronicler says: “the miracles which he worked when alive did not cease.” A certain boy was vexed so terribly by an evil spirit that he lost his reason and shouted and cried, trying to tear in pieces with his teeth his own limbs or whatever came in his way. A priest from the monastery (Lindisfarne), was sent to the sufferer, but was unable to expel the evil spirit. Even the relics of saints in the monastery proved ineffective, until a priest, who remembered where the water had been thrown with which the body of St. Cuthbert had been washed, went to this place and collected a little earth. This he is recorded to have mixed with some water and poured into the mouth of the epileptic boy. He, shutting his eyes, fell into a profound sleep, and in the morning was found free from madness and from the evil spirit by which he had been afflicted. Many other cures, according to Bede, were wrought by stones and earth from the same place.⁴

Case of
epilepsy

The earliest Saxon medical manuscript which has come down to us is the Leech Book of Bald, dating from the early part of the 10th century.⁵ In this volume are mentioned plants which were available for medicines, such as rue, hyssop,

Leech Book
of Bald

¹ Bede: “Vita S. Cuthberti,” Cap. XXIII.

² Bede: Op. cit., Cap. XXXII.

³ Bede: Op. cit., Cap. XXV.

⁴ Bede: Op. cit., Cap. XLI.

⁵ Cockayne: “Saxon Leechdoms,” Vol. II., p. xxiv.

Cui sequentia q̄q; p̄sūm eide sensu cōcorda
 re q̄ rēcēat intelligit. Impositū aut nani
 uenerabile corp̄ patris: ad misilā immissar
 nentū reuoluit. q̄d iniquo occurrenti ag
 mine elonq; amencū susceperit ē: atq; in
 ecclia beati ap̄i petri ad dextram altaris
 petri in sinu cophago repositū. XL I
 in pueri demoniae sit hūmo cui lauaterū coposi
 misilum est in aquam missa samaris .



Sed nec de fumeco ac tumulto xpi
 famulo signa sanitati que uuens
 exercebat: cessare potuerit. Contigit
 namq; puerū quenda in tricolore lincissar
 nentū atrocissimo demone uexari. ita
 ut sensu rictoris fandiē amisso clamaret.

RECOVERY OF EPILEPTIC BOY
 Drawing of early 12th century

obsecrante. donec ipsū q̄q; lacrimis plenū
 dulcib; extrahunt lacebris. atq; ad sino
 diū pertrahunt. suo diū pueniret: quāuis
 multū remittent in anima omniū uolunta
 te suscipat. atq; ad suscipiendū ep̄itū offi
 cii collū summittere copellit. Nec tñ staci
 ordinatione si p̄alta hieme que iminebat ex
 p̄lecta ē: atq; ut uerb̄ et p̄pheticū p̄ omnia
 sua fieret: q̄st̄ id̄ p̄ annū p̄cedoz q̄ladio
 trucidat. et ad fridus in regnū suū et noct̄
 substituit. q̄ n̄ paucis ante ep̄ozib; in regi
 onib; scotoz lectoni opam dabat. ibi ob
 amore sapientie spontaneū passus exilia.
 delectē ad ep̄itū serui comitē languente aq̄ be
 nedictē curauit.



Pro uo q̄ clecē ad ep̄itū un̄ dñi cūchē suā
 remissit ad misilā. atq; aliquāculū ep̄ozis

ST. CUTHBERT CURING A SERVANT BY APPLICATION OF
 HOLY WATER
 Drawing of early 12th century

fennel, mustard, elecampane, southernwood, celandine, radish, cummin, onion, lupin, chervil, flower de luce, flax, rosemary, savory, lovage, parsley, coriander, olusatrum, savine; and, among foreign drugs, mastich, pepper, galbanum, scammony, gutta ammoniaca, cinnamon, vermilion, aloes, pumice, quicksilver, brimstone, myrrh, frankincense, petroleum and ginger.¹ Petroleum is mentioned seven times, and seems to have been a valued remedy.

This work shows the influence of a Latin education and treats of many serious diseases to which the author assigns herbal remedies, which he hopes will cure them. It was written for a physician, Bald, by Cild, a monastic scribe. He extracts paragraphs wholesale from Greek writers such as Paulus of Aegina, who compiled his medical work in the 7th century; and the extent to which people travelled in the days of Saxon England is indicated by his inclusion of several remedies which had been sent from Helias, the Patriarch of Jerusalem, to King Aelfrid. Nor were the people of northern Scotland less subject to distant influences, for even Adamnan at Iona was visited in the 7th century by Arculf, from whose information Adamnan composed his account of the holy places in Palestine and elsewhere.²

The Saxon leech also includes, in his medical collection, remedies of Hibernian and Scandinavian origin, and he mentions several charms which he had derived from a Scottish source. Among the latter he says:—

Scottish remedies in leech book

“If a horse or other neat be elf shot, take sorrel seed and Scottish wax, let a man sing twelve masses over it, and put holy water on the horse, or on whatsoever neat it be, have the worts always with thee.”³

In another place he recounts a charm which he says is a Scottish approved incantation against several poisons, as follows:—

“For flying venom and every venomous swelling, on a Friday churn butter, which has been milked from a neat or hind all of one colour; and let it not be mingled with water, sing over it nine times a litany, and nine times the Paternoster, and nine times this incantation:—

“Acrae, aercrae, aernem, nadre, aercuna hel, aernem, nithaern, aer, asan, buithine, adrice, aernem, meodre, aernem, aethern, aernem, allu, honor, ucus, idar, adcert, cunolari, raticamo, helæ, icas xpita, haele, tobaert, tera, fueli, cui, robater, plana, uili.

“That is valid for every, even for deep wounds. Some teach us against bite of adder to speak one word, that is, ‘Faul’; it may not hurt him. Against bite of snake, if the man procures and eateth rind, which cometh out of paradise, no venom will damage him. Then said he that wrote this book, that the rind was hard gotten.”⁴

¹ Cockayne: “Saxon Leechdoms,” Vol. II., p. xii.

² Adamnan: “Pilgrimage of Arculfus in the Holy Land,” Palestine Pilgrims’ Text Society, London, 1883.

³ Cockayne: “Saxon Leechdoms,” Vol. II., Bk. I., Ch. LXXXVIII., p. 157.

⁴ Cockayne: Op. cit., Vol. II., Bk. I., Ch. XLV.

Once again he mentions Scottish wax as a remedy against impotence :—

“ If one drink a creeping thing in water, let him cut into a sheep instantly, let him drink the sheep's blood hot. If a man be ‘ restrained ’ with worts, give him springwort for him to eat, and let him sup up holy water. In case that a man be ‘ withheld ’ ; if he hath on him Scottish wax, and the small atterlothe ; or let him drink it in boiled ale, he may not be ‘ restrained ’ by worts.”¹

This Saxon leech book is a strange medley of some remedies and procedures which appear at the present day reasonable and useful, with others that seem disgusting or utterly ineffective. Well-known drugs, and simple herbs, chosen apparently for their appearance or some fanciful resemblance to an animal or inanimate object, are mingled with Christian prayers and pagan charms. The writer of the book displays evidence of learning, enquiry and travel, with a mixture of shrewdness and simplicity.

The compiler Bald, or his scribe Cild, is both an eclectic and a latitudinarian. The growth of rationalism and the increasing separation between spiritual and physical conceptions of disease and healing are manifest in the thinly-veiled scepticism as to some of the cures. There is an evident doubt whether natural remedies are made more effective by saying over them Christian prayers, but it is admitted that these may at least be tried, or, if one prefers them, the old heathen charms that have been found useful in the past. The work is, however, thoroughly characteristic of medicine in the dark ages.

¹ Cockayne : “Saxon Leechdoms,” Vol. II., Bk. I., Ch. XLV.

CHAPTER III

MONASTIC MEDICINE OF THE TWELFTH TO FOURTEENTH CENTURIES

WITH the advent of the Norman civilisation, which came to Scotland at the end of the 11th century and the beginning of the 12th, under Queen Margaret and especially David I., schools and religious houses were established and a much greater knowledge of ancient learning, including that of medicine, became available. Intercourse between the north of Scotland and the Baltic countries, and between the southern part of the kingdom and the Low Countries and France, speedily sprang up, and this led to a further diffusion of knowledge and to the introduction of new habits and modes of thought in Scotland.

State of
Scotland
in the
12th century

The 13th century was one of great prosperity in southern Scotland. The Anglian domination of Northumbria had been overcome and peace had reigned in Lothian for 200 years. The Norsemen had been expelled from the Scottish mainland. On the east coast, Berwick, reputed to be the chief port in Britain before the 14th century, was at the height of its prosperity, and in the west, Glasgow Cathedral, to-day the finest ecclesiastical building in Scotland, was then rising under Bishop Jocelyn's hand. The beautiful Abbeys of Jedburgh, Kelso, Melrose, Dryburgh, Newbattle and Holyrood had been founded as centres of light and learning by David I. during the 12th century.

Here, amid the pleasant vales and woods of Tweedside and Lothian, peaceful Norman settlers had introduced art and learning without the strife from which England then suffered under Richard I., John and Henry III. To the people in the south and east of Scotland, learning had become a matter of desire, and grammar schools existed in all the towns of any size. An acquaintance with Latin was widespread, and many manuscripts of Greek and Roman learning were accessible in the monasteries. To Scotland came monks from England, France and distant Italy, and many Scotsmen went abroad, bent upon commercial enterprise, the acquisition of learning, or the gaining of fame and standing in the martial service of foreign princes.

Most of the monasteries also possessed hospitia, situated sometimes at the monastery itself, sometimes on a route used by pilgrims and travellers. In these hospitia, monks specially skilled in medicine cared for sick or wounded travellers, and for persons of the district who required medical attention. An example of such a hospitium in Scotland is still to be

seen in the few ruined remains of Soutra Aisle, situated on the road from Edinburgh to Kelso and Dryburgh Abbeys, which was founded by Malcolm IV. in 1164, for the care of travellers and pilgrims proceeding to these shrines.

Michael
Scot



PORTRAIT OF MICHAEL SCOT
(From Bodleian MS., "De Physionomia")

As an example of a Scot who journeyed to the Continent and attained a reputation as a scholar and a doctor in foreign parts, Michael Scot¹ may be mentioned. He was born on the Scottish borders about the year 1175 and died about the year 1232, after his return to his native country. He affords a good example of the learned churchmen who practised medicine at a time when learning of this kind was necessarily restricted to churchmen, because the means of deriving a knowledge of medicine were to be found solely in the libraries of the religious houses, or of princes. During his life abroad, between the years 1200 and 1208, Scot had acted as tutor to Frederick, King of Sicily and later Emperor of Germany, a prince famous for his talents and for his encouragement of learning.

As a marriage present to Frederick, Scot composed for him his "Liber Physionomiæ," a guide in the knowledge of men, intended to be useful to a pupil about to pass from his charge into the stormy life of European politics.² This work aims at giving a description of the character, peculiarities and diseases of men which can be gained from their outward appearances. The subject was an important branch of the knowledge of medical men in the Middle Ages, as is indicated in the Charter of the Edinburgh Surgeons and Barbers, who were expected to know the "nature and complexion of every member humanis bodie, and als thatt he knaw in quhilk member the signe hes domination for the tyme." The book attained a great popularity in manuscript, and, after the introduction of printing, no fewer than 18 editions appeared between 1477 and 1660. Part of the work is influenced by Aristotle's "History of Animals," part is taken from the "Liber ad Mansorem" of Rhazes, but the greater portion is apparently from Scot's own observation. Of the three books, into which it is divided, the first deals with the mysteries of birth and generation, the second expounds the evidences of the different complexions as revealed in various parts of the body or by dreams, and the third explains what signs of the inward character can be read in each of the bodily members.

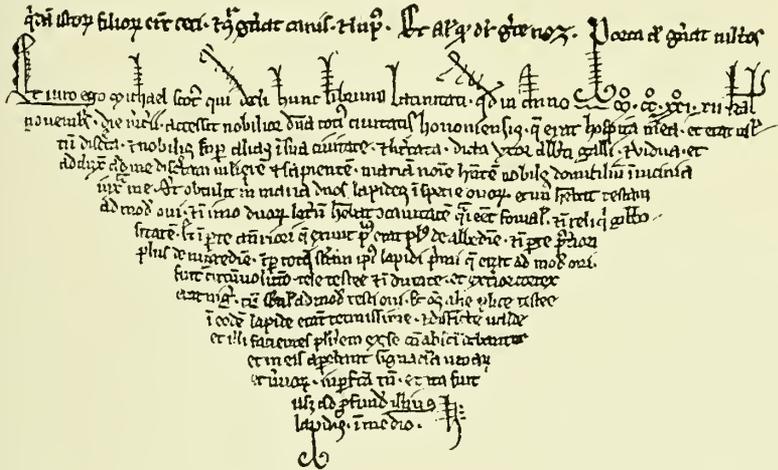
Michael Scot was also celebrated as a translator of Aristotle, as a writer on alchemy, and as a contributor to what was then an important science—that of astronomy and astrology. His eminence as a writer is testified

¹ See Wood Brown: "Life and Legend of Michael Scot," Edinburgh, 1897.

² Comrie: "Michael Scot: A 13th century Scientist and Physician," *Edinburgh Medical Journal*, July, 1920.

by Vincent of Beauvais, Albertus Magnus and Roger Bacon. The enactments of Frederick II., regarding the practice of medicine in Italy and Germany, had an important influence in standardising medicine and in confirming the social status of its practitioners so far as these countries were concerned, and the inception of these regulations is probably correctly attributed to his tutor, Michael Scot.¹ Scot is also stated by de Renzi to have been one of the early teachers in the mediæval medical school of Salerno.²

As a teacher and practitioner



ORIGINAL NOTE OF A CONSULTATION OF MICHAEL SCOT AT BOLOGNA IN THE YEAR 1221

(From *Gonville and Caius College MS.*, of the 13th century)

As a practising physician, Scot enjoyed a great reputation, being specially celebrated for his treatment of leprosy, gout and dropsy. One of his consultations on a case of calculus is still preserved in the margin of a manuscript in the Library of Gonville and Caius College.³ One of his pills, known as "Pilulæ Magistri Michaelis Scoti,"⁴ is noted by a 13th century copyist as effective to relieve headache, purge the humours wonderfully, produce joyfulness, brighten the intellect, improve the vision, sharpen hearing, preserve youth and retard baldness. These pills were composed of aloes, rhubarb and nine fruits and flowers made into a confection, and might fairly be described as excellent after-dinner pills.

Scot had gained even in Italy a reputation as a seer of the future and magician, As a mystic so that Dante placed him in the Inferno along with other soothsayers as

"That other, round the loins
So slender of his shape, was Michael Scot,
Practised in every slight of magic wile."⁵

¹ Huillard-Brehollis: "Diplomatic History of Frederick II." Paris, 1851.
² De Renzi: "Collect. Salern.," i., p. 292.
³ *Catalogue of MSS. in Gonville and Caius College*, 109 (i., 3).
⁴ British Museum, Additional MS. 24068 (22), folio 97.
⁵ Dante: "Inferno," XX., 115-117 (Cary's Translation).

Michael Scot appears to have availed himself of hypnotic suggestion for the performance of some of the striking feats upon which his reputation as a wizard was built up. Boccaccio, in the century following Scot's death, speaks of his magical or conjuring tricks during his stay at Bologna.¹ Two of the traditional tales regarding him in this connection are quoted by Wood Brown.² At a feast held in the month of January, Michael Scot caused vines with ripe clusters of grapes to appear on the table. The guests were bidden to choose each a bunch and wait for a given word. At the word "cut" the grapes disappeared and the company found themselves each with a knife in the one hand and his neighbour's sleeve in the other.

At another time, during a banquet given in Palermo by Frederick II. to celebrate his coronation in 1220, Scot and a companion suddenly appeared, dressed in eastern robes, and offered to perform a wonder. After some minor performances, Scot asked that a German baron Ulfo should be allowed to accompany them on an expedition. They left the banquet hall with Ulfo and to him they seemed to set forth in galleys, pass out into the Atlantic to a strange land, where followed battles, marriage with a lovely princess, twenty years of wedded bliss and a large family of sons and daughters; finally, the two magicians reappeared and persuaded him to accompany them back to Palermo. On their return, to Ulfo's astonishment and sorrow, the banquet of twenty years before was still going on, and all his hardships and joys were a dream never to be repeated.

It was natural, therefore, that on Scot's return to the Scottish Lowlands, in his later years, an ignorant peasantry regarded him as a wizard, whose alleged association with the devil is indicated by several striking features of the landscape in the Scottish borders:—

"A wizard of such dreaded fame,
That when, in Salamanca's cave,
Him listed his magic wand to wave,
The bells would ring in Notre Dame."³

Edward I.
of England

About a century after Scot's time, a distinguished patient, at the end of the 13th century and beginning of the 14th, in regard to whose treatment a considerable amount of record remains, was Edward I. of England, who at this time was frequently in Scotland engaged in the attempted conquest of this country.

Edward I., having been severely injured by a kick from his horse on the night before the battle of Falkirk (21st July, 1298), was conveyed to Torphichen Priory, and there carefully tended and restored to health. The fact that Edward was conveyed some eight miles for medical treatment is a testimony to the high estimation in which the skill of those at the Preceptory was held, for Edward was accompanied by no less than seven medical men of his own, including a king's physician with two juniors (valetti), a king's surgeon, and two assistants (socii) and a simple surgeon. The king's physician and surgeon were of high standing,

¹ Boccaccio: "Elinando."

² Wesselofsky: "Paradiso degli Alberti," Bologna, 1867, II., pp. 180-217, quoted by Wood Brown, "Life and Legend of Michael Scot," Edinburgh, 1897.

³ Scott: "Lay of the Last Minstrel," Canto ii., 13.

receiving the pay of Knights (2s. daily).¹ This serves to indicate the important social and military standing of surgeons who accompanied the armies of the 13th century.

By the year 1305, Edward had subdued Scotland, and William Wallace was executed. Edward had, however, no sooner turned his back on Scotland than a fresh revolt broke out under Robert Bruce, and, at the age of nearly 70, Edward had to face the prospect of conquering Scotland for a fourth time. Weak and ailing, he took the field in person, and in 1307 was laid up seriously ill at Lanercost Priory near Carlisle.² Here he was treated in the hospitium of the Priory. A list of medicines which were procured for his treatment has been preserved.



LANERCOST PRIORY

The building with flagstaff is the guest-house in which Edward I. was treated

As Lanercost is only some ten miles from the Scottish border, the treatment in this religious house may be taken as very much of the same type that would have been used at the hospitium of Melrose, Dryburgh, or one of the other abbeys on the Scottish side of the border. Edward had at the time English garrisons scattered throughout Scottish strongholds, and had declared himself overlord of Scotland.

¹ Smart : *British Medical Journal*, 1873, Vol. I., p. 140.

² "Chronicle of Lanercost," 1272-1346, trans. by Sir H. Maxwell, Glasgow, 1913, p. 179.

Edward's
last invasion
of Scotland
and his
fatal illness

Since the spring of 1306, Edward had been harassed and weakened by a complaint which has been described as dysentery, but which, in all probability, was a cancer of the bowel. At Whitsuntide, when he had to go through the public duty of conferring knighthood on a large company of young men in Westminster Abbey, his strength had proved insufficient to enable him to discharge his part in the ceremony.¹ In October, 1306, Edward held a council at Lanercost Priory, and passed sentence upon the chief instigators of what he was pleased to call the rebellion in Scotland, and upon those who had been guilty of the slaughter of John Comyn, especially Robert Bruce. He was still there, apparently unable to leave, in November, and was at Lanercost till 26th March, 1307.

At Lanercost he had been seriously ill, and Master Nicholas de Tyngewyk,² the physician, who was apparently an ecclesiastic, had been brought all the way from London to treat him, at a cost of 100s. for his travelling expenses going and coming. In view of the changed purchasing power of money, this would be equivalent at the present day to about £150. The details of the remedies used in 1306 and 1307 for the king's treatment have been preserved, and show some points of medical interest.³

Remedies
used

As external applications for the legs, an ointment of cicotine aloes was used, later a desiccative ointment with balsam, and later an application of gums. Baths of aromatic flowers and herbs were also employed at a cost of 110s. For inward relief a comforting electuary of amber and musk, with the addition of pearl, jacinth, gold and silver, was ordered to the large amount of eight pounds, at a cost of eight merks.

Other remedies mentioned in the account, whose manner of use is not stated, were oleum fraxinæ, various plasters, distilled turpentine, oil of laurel, water of damascene roses, pomegranate wine, balsam, an aromatic powder of aloes, thyme and myrrh, musk for the nostrils, etc. A plaster with laudanum and oriental amber was used for the neck, and oriental amber was used to the extent of 18 ounces for administration in the king's food and claret. Many of these remedies seem to be designed as aperients and for the relief of cramps and colic.

Included in the physician's account, on the instructions of the king, are some items for Robert de la Warde, who was a paralytic, including 38 clysters, 12 ounces of Indian oil, 16 ounces of castor fat, and a quantity of castor ointment. Peter of Coldingham appears to have received syrup and medicine in the same way. John of Hockham received medicine, syrup and a clyster; and William de Corbye syrup and medicine at Carlisle.

The whole amount of the physician's bill came to £134 16s. 4d. To gain an idea of what this would represent at the present day, it must be multiplied by a figure of about 30, making an account of well over £3000 sterling for the physician's care, remedies and travelling expenses.

Under Tyngewyk's treatment the king was so much relieved that on Midsummer Day, 1307, he solemnly dedicated in Carlisle Cathedral the horse-

¹ Seeley: "The Greatest of all the Plantagenets," London, 1860, p. 374.

² This is probably Tingewick in Buckinghamshire.

³ British Museum, Additional MS. 25459.

litter in which he had been travelling, and mounted his charger on 3rd July. He struggled on and made two short marches at the head of his troops to Burgh-on-Sands, where he died within sight of Scotland on 7th July, 1307.

This monarch's great opponent, Robert Bruce, King of Scots, died in 1329, also of a lingering illness. That he required a great deal of medical treatment is evident from the accounts submitted to the Exchequer by his physician and various apothecaries, although the accounts are not given in detail. Thus Jaunius, an apothecary, received 78s. for remedies supplied over a period of 28 weeks.¹ There are further payments to Johannus, another apothecary, of £14 13s. 4d. and of 66s. 8d.² After the king's death the same apothecary received £37 6s. 8d. for drugs which were probably supplied in connection with embalming the king's body and the removal and preservation of the heart for transfer to the Holy Land.³ The king's physician, in his last illness, was Master Mavinus, who lived for some time at Perth.

Last illness
of Robert
Bruce

Another well-known physician of this time was Master Nicholas of Flanders, who received payments from the exchequer.⁴ The amounts paid to him between 1359 and 1364, in the reign of David II., totalled £21 13s. 4d.

Physicians'
fees in 14th
century

Other physicians of this reign were Hector Leche,⁵ Thomas de Hall,⁶ who was regularly employed, and John of Newcastle, who received one shilling daily during a period of seven weeks' detention at Edinburgh in 1359.⁷

In the reign of Robert II. there were several payments to Ferchard Leche for attendance on this king,⁸ and in 1386 the king made him a large grant of land in Jura and the neighbouring isles. Ferchard Leche also received a payment from Robert III. in 1397,⁹ and in the same year this monarch sanctioned the payment of ten shillings to a physician (*cuidam medico*) who treated Robert of Danyelstoun.¹⁰ William, a physician practising in Glasgow, attended Robert III., receiving on two occasions, in 1395 and 1397, a fee of 53s. 4d., equivalent to the duty on two sacks of wool.¹¹

There was in Scotland a considerable folk-medicine which is to be found in the early state of society already described in Chapter I., and which, in remote districts, was handed down by tradition with little change, to the 17th century (*see* Chapter X). At the time which we are at present discussing, about the 12th, 13th and 14th centuries, a more rational study of medicine and disease was coming into existence through the church. Churchmen passed freely from one country to another in times of both peace and war, carrying their manuscripts with them. It is difficult at the present day to say, in regard to those early medical

Medical
books in
monasteries

¹ "Exchequer Rolls of Scotland," Vol. I., p. 176.

² *Op. cit.*, p. 213.

³ *Op. cit.*, Preface, p. cxxi.

⁴ *Op. cit.*, p. 616, Vol. II., pp. 29, 149.

⁵ *Op. cit.*, Vol. I., pp. 562 and 617, Vol. II., p. 6.

⁶ *Op. cit.*, Vol. II., p. 357.

⁷ *Op. cit.*, Vol. I., p. 616.

⁸ *Op. cit.*, Vol. III., pp. 74, 137, 242.

⁹ *Op. cit.*, Vol. III., p. 415.

¹⁰ *Op. cit.*, Vol. III., p. 422.

¹¹ *Op. cit.*, Vol. III., pp. 356, 427.

manuscripts which have been preserved, that they were used in one or other country. A manuscript copied at an Italian or Spanish monastery might find its way to Scotland, while manuscripts originating in Scotland have been carried by their owners to France or Switzerland, and there found a permanent resting-place.

Certain manuscripts, however, can be definitely indicated as having been used in Scotland and found in its religious houses at the time of the Reformation. Sir James Balfour (1600-1657), of Denmilne and Kinnaird, Lyon King-of-arms to Charles I., was in early life an enthusiastic antiquary and collected manuscripts which had been dispersed at the Scottish Reformation some fifty years previously.¹ A number of these, including five medical works which came out of Scottish monasteries, are included among his books preserved in the National Library at Edinburgh.

It is not now possible to indicate the monastery from which they came, beyond saying that they were used in Scotland. Some extracts from these give an idea of the views held as to the nature and treatment of disease by the clerical practitioners of medicine in Scotland during the 12th, 13th and 14th centuries.

These five MSS. are as follows:—

(1) No. 18.3.13 (Denmilne 7). “*Commentaria in Libros Galieni de Corpore humano et in Libros Aphorismorum Hippocratis.*” (12th century.)

(2) No. 18.5.16 (Denmilne 4). “*Medical Collection.*” (12th century.)

(3) No. 18.6.13 (Denmilne 8). “*Liber Galieni ad Glauconem Nepotem.*” (12th to 13th century.)

(4) No. 18.6.9 (Denmilne 59). “*Miscellaneous Medical Treatises.*” (14th century.)

(5) No. 18.2.5 (Denmilne 33). “*Serapionis librum de Simplicibus et Constantini Theorica et Practica Medicinæ.*” (14th century.)

Commen-
taries on
Galen and
Hippocrates

(1) The commentaries on the books of Galen concerning the human body, and on the books of Aphorisms of Hippocrates, constitute a large vellum volume, $10\frac{1}{2} \times 7\frac{3}{8}$ in., with 126 folios in double columns, bound in smooth brown leather. The manuscript is written in Latin and is of the 12th century. The author, as stated in the introduction, is Johannicus, the disciple of John of Alexandria. Selections from the text of Galen and Hippocrates are written in large script, and a commentary follows each in a smaller hand. The part on Galen occupies folios 1-49, and that on the Aphorisms of Hippocrates, folios 50-126. There is no mark of ownership earlier than that of Sir James Balfour.

The following is a translation into English of the Aphorisms of Hippocrates, Section V., numbers 10, 11, 12, 13 and 14 (together), 15, 16, 17 and 18, with, in each case, the commentary by Johannicus upon the aphorism. The commentaries give a good idea regarding the somewhat naïve notions held by practitioners in the 12th century regarding bodily functions and diseases.

¹ Sibbald: “*Memoria Balfouriana,*” Edinburgh, 1699, pp. 32 *et seq.*

MS. National Library 18.3.13. ff.100^v, 101, 101^v.

THOSE WHO ESCAPE QUINCY WHEN IT IS TURNED BACK ON THEIR LUNG DIE IN SEVEN DAYS, BUT IF THEY ESCAPE THESE THEY BECOME PURULENT.

Commen-
taries on
Aphorisms of
Hippocrates

This does not mean that pleurisy develops into empyema, but refers to those suffering from quinsy. Quinsy sometimes develops in the fleshy parts of the throat and by the smoothness of the place, slips down to the lung and suffocates the subject up to the seventh day.

If they escape these seven days without dying, it signifies strength of the lung and that the material has collected in the hollow of the chest and turned into an empyema. Let us labour, therefore, that the sick man may be purified from matter, that is to say, when anyone has a quinsy it must be found out whether he has not had a determination of it either by a discharge from the nostrils or by another abscess.

IN THOSE WHO ARE TROUBLED BY PHTHISIS, IF THE SPUTUM THAT THEY BRING UP SMELLS HEAVY WHEN POURED UPON CHARCOAL, AND IF THE HAIR FALLS FROM THE HEAD IT IS DEADLY.

He has now spoken of phthisis by what signs we may recognise the phthisical persons who are about to die. But he shows that it is to be noted that a wound of the lung can scarcely be healed both because the lung is in motion and on account of the sputum existing there. But after matter has collected there the lung can in no wise be healed. For a wound cannot be consolidated and healed unless it is purified; but a wound of the lung cannot be purified except by coughing, and cough is inimical to the closing wound. For the motion of coughing opens rather than closes the wound, whence no doubt a certain part of the matter is removed by the cough, but by the greater opening a greater quantity of matter is collected there and thus the sick cannot in any way afterwards be cured. We ought, therefore, to labour while the wound is recent and not wait till it has become putrefied, to cure it with remedies which are styptic and consolidating and constricting to the blood. If, however, those who are troubled by phthisis have now come to a stage at which the matter they spit up gives a heavy smell when poured upon charcoal, and if the hair is falling from the head, it is a fatal sign. In this matter, that the sputum smells thus when placed upon charcoal, it indicates that the substance of the lung is thrown up putrefied. If, however, it is asked why the sputum does not smell at an earlier stage, it is because, when congealed by coldness, it did not give up any odour even when placed on charcoal, and when now dissolved by heat it gives up a smell. In this matter that the hair falls from the head is a sign that there is almost no effervescence made in the body, and that nutrition is defective; thus the hair falls out which is developed from the smoke of the body, and this being deficient, it falls out. All these things threaten death.

IN ANY PHTHISICAL PERSONS, IF THE HAIR FALLS OUT WITH SUPERVENING DIARRHŒA, THEY DIE.

Not only does the smell of the sputum signify death, but in diarrhœa with resulting loss of the hair the nutriment is also drawn away. This ought to sustain the debility of the sick and the little heat and spirit left evaporate. Moreover, this diarrhœa shows a loss of the strength which ought to be retained. Thus let us, so to speak, by no means allow phthisical patients to fall into diarrhœa, and if they have fallen into it let us bind them.

In hoc loco agit specialiter de phthisi apti-
mone facta. que maxime à reu-
lunt usq; ad xxx. habet fieri. In
enim ecate calos. & siccatas incen-
dunt. cui auget. qd. que aucta-
te sua pulmonem urubiat. & sicca-
te nimia rumpit. & sic phthisis.

12

Quinaria

**Quicumq; quinariam ef-
fugiunt. ad pulmonem
eis conuertitur. & in septē
diebus moriuntur. Si u-
has effugerint. empiria**

**fiunt. Quicumq; quinam-
ce. &c. non tū pleuritiā empiria
fiunt. s; quinaria. quanta a-
liquā sit in carnosā local gūta. &
rēntur loca dēant. ad pulmo-
nē. & usq; ad septimum diem
suffocat. Si effugiunt. hōs
septem dieb; nec moriunt. sig-
nificat fortitudinem pulmo-
nis. & materiam in contāntate
pectoris collectam. & conūctē in
empirna. Laborem usq; ut eger-
at fame mundificat. qd. die qūq;
quinam. de illis intelligendū ē
quib; nulla facta est determinō
neq; p flurim nartū. neq; pa-
liud apōstema.**

13

**Qui à phthisi molestantur.
si sputum quodcumq;
expuunt graue fetet**

**sup carbonel effusum. &
pili à capite defluunt.**

**mortale. Qui à phthisi. &c. hūc
tat de phthisi. nunc autem quib; sig-
nis phthisi mortuos cognoscimus
ostendit. Si notandum est quia ph-
monis uulsi uix potest consolida-
ri. tum ideo quia pulmo immotu
est. tum ppter spm ibi existentem.
S; postquam ibi collecta est san-
el nullo m potest consolidari. Co-
solidari enim non potest uulnus
& mirari. in mundificat. Pulmonis
autem uulsi mundificari n pot-
nisi p rullēm. rullis u immica est
claudendo uulsi. Nam in rullis ē
mot. ex motu magis aptū uulsi
q̄ uulsi rullat. unde hęc quōdam
pars fame p rullēm emittat. tū
p̄ maiorem ap̄tionem maior q̄
tal fame ibidem colligit. & sic nullo
m postea curari possunt. Deben; g;
laborare dum uulsi recent est. m
dum putredum. cum reb; stupa-
cis. & solidantur. & sanguinē strin-
gentib; ut uulsi curent. Si autē q̄
à phthisi molestantur. iam ad h̄ dēcē
unt. ut illi qd̄ expuunt gūe fetet
reddat sup carbonel effusum. & a-
pili à capite defluunt. mortale ē.
In hoc qd̄ spiritū sic fecit sup carbo-
nel positum. substantiā pulmonis
putrefactā emittit potendit. Si autē
quērat quare p̄u non fetet. dñs
quia frigiditate congelatum. nul-
lum reddebat odorem. postq̄ autē
sup carbonel. & calore dissolutum.
emittat fetorem. In hoc qd̄ capili**

capite deficiunt. ignum est. quia
nulla feru in corpore fiat ebullitio. 7 qd
deficit nutrimentum. cadunt capilli
quod sunt ex fumo arboris. quo
deficiente cadunt. hōi morō unni-
tus.

**Quibuscumq; pthysical si deflu-
unt capilli. diarria superue-**

niente. monuitur. Quibus
cumq;
pthysical. 7c. Non tñ feru spū mē-
tem significat. s; 7 diarria cū fluxu
u capilloz. p diarriam. nutrimen-
tum subtrahit. qd debilitate eorum
sustentare debet. 7 illud tanth ca-
lens. 7 spū euaporat. hoc autē diar-
ria. 7 recensibilis emittat defectioē
ostendit. hōi is dicit ut illōm pthi-
sical diarriam sustinere sinamus.
7 si macerentur constringamus.

**Quicumq; sanguinem spu-
mosum expuunt. hyl ex
pulmone eductio fit. supra
si habito diarria superuen-**

ent. morale. Quicumq; san-
guine. Cum pusio a pulmone si-
guntē emittant. unde ipsam cog-
noscent ostendit. Sanguis autē p
os emittit. abqñ a stomacho. abqñ
a capite. abqñ a pectore. abqñ a
pulmone. qd ita discernit. a sto-
māo emi. puomitu emittit. a
capite u. exiens. a supionib; cade

sentit in pulat. A pectore exiunt hñ
spumos. A pulmone u expuit. 7 spe-
mosus. Cum enim in pulmone spū
fit mitus. faciat in sanguine mo-
tū. reddit eum spumosum. 7 sic cog-
noscat a pulmone emitta supra.
non tñ diarria cum fluxu capil-
loz. moral est. s; 7 sola diarria su-
pra dicta ratione.

**Quicumq; ex pleuretide em-
pica fiunt. si pungentur i**

**quadraginta diebus. a
qua die ruptura fit. q
escunt. Si uero non imp-
tūm transeunt. Quicumq;
a pleuretide. Hiat pleuritaos
in empya transire. non an-
timum ipsius solutionis pon-
ista quem terminū si non pur-
gent in pusin transeunt. Sicut
materia non purget in quadragi-
ta diebus spūatit ab illa die. a q
fit est ruptura. apostematit. mto-
tudo materie. 7 egri debilitat no-
tatur. 7 transeunt in pusin.**

Calidum nocte hoc frequent
uentibus carnum effem-
nationem. neruorum mo-
tinentiam. mental stupore.
Sanguinis fluxum. defectio

"In any pthysical persons, etc." "Those who spit up frothy blood, etc." "Those who develop empyema, etc." and beginning of "Warmth injures those employing this frequently," with 12th century commentaries

(MS. National Library of Scotland, 18.3.13, folio 101 recto)

Cnem spiritus quibus mors.
 alidum nocte. r. cetera. h. adant de
 morbis qui frunt ex quantitate.
 ne autē agit de illis qui frunt ex
 qualitate. ut ex calore. frigidum. Cum
 agit de calido. ostendat que egritudo
 videtur inde conungant. maxie
 de balneo age videtur. 7 die. quia
 calidum nocte hoc frequenter incu-
 bi. facit enim effeminationem car-
 num. 7 balneum enim calide a-
 que. carnes molliciat. 7 feminas
 reddit. femine molles hnt carne
 ex humiditate. unī. siccitate da-
 rat. 7 ob hoc non possunt liborem
 sustinere. calore enim humidita-
 tem dissolvit. 7 nervos emollit.
 7 ita facit nervorum incontinē-
 tiam. Item ex balneo 7 ex hamou-
 ly p balneum dissolvit. Ascendit
 fum cerebrum. 7 replendo gnat stu-
 pore mentis. Calore ē oia venarū
 apunt. 7 sic sanguinis fluxus.
 Ex fluxu sanguinis quid sequit.
 Defectio spē. pp evaporationem ip-
 suū. Ex defectio spē. mors succ-
 dit.

Frigidum vero. spasmos et
 thetanos. 7 migres. 7 rigo-
 res febrium. **F**rigidum a
 r. c. Ex calore sup-
 dicta sunt. h. ex frigiditate hnt
 spasmi. 7 frigiditate enim in-
 ma. siue dens. siue muf. siue
 balnea. nervi contrahunt. 7 sic
 spasmi. 7 thetanī in possionib. 7 a-
 rionib. nervul. 7 migres. 7 rigo-
 res. frigiditate enim incuta mē-

bra in hon r. c. magi sciunt. ut
 videt in morbo 7 frigora febena.
 p se quidem facit frigora. q. in frig-
 dat exteriora. p accidens. au facit
 febres. quia cum fum evaporate n
 possit. ex densitate supficia mīa
 mensus. facit febres.

Frigidum inimicum est ner-
 vis. ossib. dentib. cerebro. spi-
 rali medulle. **F**rigidum im-
 micit. 7. Hyum q.
 calidū. 7 frigidum faciunt g. r. d.
 nel. h. non in ommb. membris eg-
 luer. quia frigidū calidum ē amicy.
 frigidum vero inimicum. i. ner-
 vis. ossib. dentib. Calore enim cor-
 frigiditas repunt. 7 r. c. p. cerebri
 u naturalit calidum 7 humidū ē.
 7 qd calidum sit. ex motu ipsius p-
 bat. motū enim ex calore habet. 7
 p hoc quia p calorem ratio uiget.
 7 alie actiones cerebri p frigidita-
 tem destrunt. ut largitas app-
 rer. in calidum hntib. cerebri a-
 tel curantes uigent. 7 p h. nec fi-
 re ipsum ē calidum. naturalit.
 abtractione vero dens sicut condit.
 eius calor temperat. 7 ita accidenti-
 lit frigidū est. cū autē ossib. 7 pa-
 mculis frigide circumdat. ita n
 fere caput compressio. frigidū.
 nimia frigiditate ledit. 7 stringit.
 7 ito frigidum est ei inimicum.
 Spinal medulla similit. frigidū.
 7 frigiditate augetat frigidū.

Calidum vero. uide. amicy.

APHORISMS OF HIPPOCRATES—continued
 Continuation of "Warmth injures those employing this frequently, etc." "But cold causes spasms, etc.," and
 "Cold is inimical to the nerves, etc.," with 12th century commentaries
 (MS. National Library of Scotland, 18.3.13, folio 101 verso)

THOSE WHO SPIT UP FROTHY BLOOD BRING THIS UP FROM THE LUNG. WHEN DIARRHŒA SUPERVENES ON A PHTHISICAL CONSTITUTION IT IS DEADLY.

He shows when phtisical patients bring up blood from the lung how we may recognise the same. For blood discharged by the mouth comes sometimes from the stomach, sometimes from the head, sometimes from the chest, sometimes from the lung. It is recognised as coming from the stomach when it is thrown up by vomiting ; but when from the head it comes out by the upper passages, and is felt to fall upon the palate ; from the chest it is spat out, but not frothy ; but from the lung it is spat out in a frothy state. For since there is much spirit in the lung making a movement in the blood the patient brings it up frothy and so it is recognised as ejected from the lung. In phtthisis, not only is diarrhœa with falling of the hair fatal, but diarrhœa by itself for the above-mentioned reason.

THOSE WHO DEVELOP EMPYEMA AFTER PLEURISY IF THEY ARE FREE OF IT IN FORTY DAYS FROM THAT ON WHICH RUPTURE TAKES PLACE, THEY BECOME QUIESCENT, BUT IF NOT THEY PASS OVER INTO PHTHISIS.

He had said that people with pleurisy pass into empyema not earlier than the end of its resolution, and he fixes the term at which they go over into phtthisis if they are not purified. For if the material is not purified in forty days computed from the day on which the rupture of the abscess takes place, the amount of the matter and the weakness of the sick man become notable and he passes over into phtthisis.

WARMTH INJURES THOSE EMPLOYING THIS FREQUENTLY. (IT CAUSES) EFFEMINACY OF THE MUSCLES, WANT OF CONTROL OF THE NERVES, STUPOR OF THE MIND, DISCHARGE OF BLOOD, DEFECTION OF THE SPIRIT ; TO THESE PEOPLE COMES DEATH.

He has treated of diseases which arise from quantity, and he does not deal with those which arise from quality as from frigid heat. When he deals with warmth and shows that sicknesses appear from it, he seems to deal especially with the bath and to say that warmth injures those using this frequently. For it makes effeminacy of the muscles, etc. For a bath of warm water softens the muscles, renders them feminine. Women have soft muscles from moisture ; (from dryness those of a man are hard) and on account of this they cannot sustain labour, for by heat it dissolves the moisture and softens the nerves, and thus causes want of control of the nerves. Also from the bath, or from humours dissolved by the bath, smoke ascends and by filling the brain, aggravates stupor of the mind. By warmth also the mouths of the veins are opened and a flow of blood takes place. From a flow of blood what follows ? Defection of the spirit takes place from its evaporation, and on defection of the spirit death succeeds.

BUT COLD CAUSES SPASMS AND TETANUS AND THE BLACKNESSES AND RIGORS OF FEVERS.

From warmth the things mentioned above arise, but from cold, spasms, etc. For from too much cold, whether of air or of snow, or of the bath, the nerves are contracted and spasm or tetanus arises. In the posterior and anterior nerves both rigors and blacknesses are caused by cold, for the stiffened joints shiver and blacken as it appears in a dead person. The cold stage of fever by itself indeed makes cold because it cools the exterior parts by chance or makes fevers because when the smoke cannot evaporate from the density of the surface, it causes intense fever inwardly.

COLD IS INIMICAL TO THE NERVES, BONES, TEETH, BRAIN AND SPINAL MARROW; BUT WARMTH IS USEFUL AND FRIENDLY.

We have said that heat and cold make sicknesses, but not equally in all members, because to the cold members warmth is friendly, but cold is unfriendly, that is to the nerves, bones and teeth. For by warmth their coldness is repressed and made milder. But the brain is naturally warm and moist, and because it becomes warm by its own action it is proved that it has its action from warmth thus. Because by warmth reason grows stronger, and the other activities of the brain are destroyed by cold, as appears in lethargic people. In persons who have a warm brain the animal virtues flourish, and on account of this it was necessary that the same should be naturally warm; but by the drawing in of the air as in the case of the heart, its warmth is made milder, and thus it is accidentally cold. Moreover (the brain) is surrounded with bones and membranes of cold nature and thus almost the whole composition of the head is cold, that is, it is injured by too much cold, and thus cold is inimical to it. The spinal medulla is similarly cold, and its coldness is increased by cold.

12th century
medicinal
compend

(2) The Medical Collection is a vellum manuscript, $9\frac{1}{4} \times 6\frac{1}{2}$ in., containing 93 folios of 30 or 31 lines to a page, bound in smooth brown leather with brass clasps. It dates from the 12th century. It contains: (a) Macer on "The Virtue of Herbs," which is a set of Latin verses dealing with the curative properties of various plants, 37 folios. (b) Evax, King of the Arabs, on "The Virtues of Stones," also in Latin verse, 7 folios. (c) "Liber Graduum Medicinæ," 31 folios, which gives remarks upon the virtues of various remedies, particularly in regard to their qualities of heating, drying, etc. (d) "Liber de Medicina," 14 folios. It consists of a series of remarks on the virtues of plants, alphabetically arranged, but it stops suddenly at the letter "F."

In the margin on folio 92, in a hand of the 13th century, is written "Frater Gristinus, Gloucester, Monachus de Burgo Sancti Petri," which suggests that the collection for a time belonged to a monk of Peterborough. On the same folio, rules for the practice of medicine are laid down by a certain Oranus and addressed to "filio karissimo."

Galen MS.
and anti-
dotarium

(3) The book of Galen to his nephew, Glaucon, is a Latin vellum manuscript, $7\frac{7}{8} \times 5\frac{1}{8}$ in. in size, containing 124 folios with 37 lines to a page, bound in smooth brown leather with two brass clasps. It dates from the 12th or 13th century. It has coloured capitals and entries, and the initials of the various books are of more or less elaborate design. Book II. has an elaborate initial in red and blue, and interlaced Celtic design in colour, the background purple, floriated in green, red and blue, and this Celtic ornamentation is evidence that the monastic scribe was of Scottish origin. Folio 11, on which this design appears, is shown in the illustration on page 72. There are no marks of ownership prior to the signature of Sir James Balfour.

The manuscript contains two works: (a) "The Liber Galieni ad Glauconem Nepotem," 95 folios, takes up various diseases and morbid conditions, one by one,

and treats them under the headings of signs, cure, etc. Various possible complications follow the account of each disease. (b) "The Antidotarius Particularis," 30 folios, takes up various remedies, mentioning the diseases for which they are useful, giving prescriptions for dispensing them, etc.; also giving the composition of prescriptions under such headings as ointments, vomits, potions, etc. It is arranged alphabetically.

Folio 11 contains first of all an index, and then remarks on "cough," of which the translation is as follows:—

MS. National Library 18.6.13, f. 11^v. (*For original, see page 72*)

Book II. commences: Cough comes dry upon some, upon others moist, and accompanied by much phlegm. Upon others with want of breath and asthma, and upon others with spitting of blood or vomiting. Others come to phthisis and die wasted. These are very greatly troubled by the cough and become cyanosed, pleuritic and affected by pneumonia and empyema. Cough may become moist from a humour of the head or from catarrh either out of the fauces or from rheum collecting by drops in the lung. Cough may also be dry in people with pneumonia and pleurisy, also from the diaphragm in people troubled by the stomach. In this case it may arise from hardness of the liver and rheum of the fauces or from sharp-tasted food and salt diet, or from cold drink. It may also be caused by dust, smoke or evil-smelling ground; also from plethora of blood when a vein has ruptured internally.

Cure. They are cured thus: They ought to lie up in a light and well-aired house, and if the cough has been loosened they may receive a constringing electuary such as this: R Roasted linseed 8 scruples, mustard seed 1 scruple, pulegium 4 scruples, roasted nuts 3 scruples, etc.

(4) The miscellaneous collection of medical treatises is written partly in Latin and partly in Norman-French, which was a language of culture among the upper classes in the south and east of Scotland. The volume is a vellum manuscript, $7\frac{1}{2} \times 5\frac{1}{2}$ in., with 156 folios, sometimes in double, sometimes in single columns of varying length, bound in smooth brown leather with two brass clasps. It dates from the 14th century. It is a miscellaneous collection, each section being written by a different hand, and several blank pages are filled with insertions in a later hand, with a variety of marginal jottings throughout. The only mark of ownership is that of Sir James Balfour. Medical
miscellany

The contents are: (a) Part of an index to some other work, one folio. (b) The Dispensatorium of Nicolaus: a treatise on the practice of medicine and materia medica, 43 folios. (c) Miscellaneous recipes, 5 folios. (d) The collection of Master Walter de Agelon on the doses of medicines, 17 folios. (e) Miscellaneous notes, 4 folios. (f) Alphabetical index of medical terms, 12 folios. (g) Anonymous treatise on medicine, in French, 67 folios. (h) Miscellaneous recipes in French and some astrological notes in Latin, 8 folios.

d e rufficula. 11	d e pleura. 19	d e apothemate. 22
d e signi comparatoy. 12	d e cumose. 19	d e uulne tartarulo. 22
d e eodem. 12	d e flognone. 19	d e eodeoy. 22
d e pufi. 13	d e eodem.	d e parali. 22
d e eodem. 13	d o duricia. 19	d e eodeoy.
d e epina. 13	d e clivina. 19	d e bulfmo. 22
d e eodem. 13	d e ueroficte. 20	d e dufis equatifauffi. 22
d e signi epina. 14	d e pneumofli. 20	d e dolore. 22
d e apem. q. m. ubi loci. 14	d e roumatifmo. 20	d e flognone. 22
d e pupleumonia. 14	d e frigore. 20	d e tumore. 22
d e eodem. 16	d e uocif apertate. 20	d e felufi. 23
d e ahmate. 16	d e anorexia. 20	d e eodeoy.
d e anolcu rathomia. 16	d e eod.	d e eodeoy.
d e homi paffione. 18	d e quuegmia. 21	d e fclera. 23
d e dufis homi uab. 18	d e uomitu. 21	d e apothemate. 23
d e dolore. 18	d e uapote. 21	d e collectione. 23
d e debilitatione. 18	d e flogmari ifufioe.	d e ficut. 23
d e anathomia. 18	d e fingultu. 21	d e eruptione.
d e lypothomia. 18	d e fudore frigido. 21	d e clari.
d e anapra. 18	d e ardore. 21	d e pleuretici.
d e oncupra. 19	d e collectione. 22	d e eodeoy. d rufficula.

ruffi. aut dicitur
 ad expellendam uicium
 m. ubi dicitur
 ubi dicitur q. d. l. a. h.



Incipit Liber Secundus:
Siccitudo est alia humectata. et est siccitudo
 uenit. Aliq. humectata. et est siccitudo
 Aliq. et anelcu. et fupurif. Aliq. et fanguini
 fputo. et reuacatione. Ali. ad p. uenit.
 et rathidimoruit. X. m. ruffi exigitur.
 fmitici. pleuretici. pupleumoni. epici.
 d. f. h. humectata fit exapra humore. aut de
 catur. a. fauic. l. quae reuacaturae in
 pulmone. Siccitudo autem ruffis fit. i. pupleumonicis. et pleuretici. homocis.
 ex dufpignite. et renfura. et dia. r. a. epita. et fauicu reuacatione. l.
 aboy. acdme. et falta. comestione. l. ex frigiditate. seu expulac. a. ex fumo.
 i. uino. a. d. l. n. b. no. f. u. e. x. f. g. u. f. h. u. b. d. a. t. a. e. u. e. n. a. t. e. q. u. i. t. **¶**
 ruffis. accipit claru. r. u. q. o. d. f. t. i. n. g. a. t. q. r. e. b. l. u. m. r. o. t. t. i. l. e. m. i. n. i. s. q.
 u. i. d. i. m. a. p. f. e. m. i. n. i. s. d. i. p. u. l. e. r. i. s. a. c. q. u. i. m. i. s. i. f. i. n. i. s. a. u. t. n. u. c. l. e. o. y. r. o. t. t. i.

LIBER GALIENI AD GLAUCONEM
 Dealing with cough and showing Celtic decoration of capital. 12th or 13th century copy
 (MS. National Library of Scotland, 18.6.13, folio 11 verso)

2. Vencolitum.

R. Cinnū. vñ. i. Liq̄. callie lig-
nec. anly. manū. gūgūbil. ana.
3. vi. garophili. gallange. ardo
mom. nucis muscete. cinnamo
mi. ana. vñ. semis laccay. lau
riacū. folij. amicos. ana. 3. iii.
spice. anacis. hysfringe. anicedo
ny. carui. ana. 3. ii. pilcrr. pi
p̄l. nigri. z. albi. q̄nata. croc
ana. 3. i.

Q. R̄i. puluer. p̄l. r̄assian. q̄. lapidem.
femeul. vñ. iii. gūgūbil. vñ.
R̄amhi. vñ. 7. liq̄. vñ. 7. ci
min. vñ. 7. carui. vñ. i. p̄ctū
lun. vñ. i. sarifugy. vñ. i.
lene. vñ. i. z. semis. anly. solū.
vñ. i. nucis. z. n̄acis. vñ. i.
piperis. feneg. oleū
olū. libum. m̄eris. cerni.
cerū.

Alectuay. ad restan
landū. R̄. liquū.
ro. an. 3. ii. draggū.
gūm arabiq. an. 3.
3. sandali. al. rube. an.
3. vi. p̄ner. al. albi.
3. 7. z. semis. lūcūlicū.

amidi. p̄. lat. scariole.
an. 3. i. z. semis. sp̄dy. ga
riof. an. 3. iii. Cinnū
mon. 3. i. z. 7. storacis. ca
lamite. an. 3. ii. c. 3. i.
p̄ndigz. 7. ii. semis. me
lois. acrim. eū. an. 3. i.
stropi. viot. q̄. suffite

R. p̄ner. R̄. p̄ner. al.
al. 7. ii. draggū. gū
mirab. al. an. 3. ii. 7. 3. i.
amidi. 7. semis. liquū.
mūdate. 7. i. p̄ndigz. 7.
ii. semis. q̄. elol. acrimū.
7. cucurbita. mūdate. an.
3. ii. sandali. al. 3. i. cam
pl̄ze. 3. i. stropi. viot. q̄.
suffite

acrim. 7. ap̄. 7. m.
quid̄te. m̄ate. ardi. r̄e
7. r̄. c̄. m̄. r̄. e. r̄. m̄. r̄. m.
anli. arn. m̄elle. viol. a
ōmome. an. 7. i.
di. amū. 7. an. 3. 7. 7.
h̄r̄. sic. m̄ate. an. 3. 7.
7. galange. cinnamū
marat. cap̄. an. 3. ii.

opu. croci. z. purpur. euforb. elactel. mabate
maticou. leucopysil. uigelle. stafisagrie. epyri. sp
ce. aii. z. i. cum succo blete confice. & informa i mo
dum accerit

Pillule optomece. z. de. vii. spēbus. humores
pissol de capite deponunt. & usum oculoz
clarum eē faciunt. cataractat phibent. ÷. i. fa
cinul. w. aloef. diagridu. amboz. z. ii. colochu
tide nitioz. epyri. creni. agarici. mastice. ke
bali. absinthu. oium. vi. z. i. terantur. & cū sac
co figu in modum accerit informantur. Ventur
er est. w. ul. ri. mane. aut uespe cum uino.

Pille ante cibum. w. cardamomi. gariofil. cu
namom. galange. uisat nuscate. zedoarium
z. ligni aloef. epice. mastice. aii. z. i. lapidis laz
u ÷. s. reubarbari. ÷. i.

Pillule stiptice cont. oēm fluxum uentris uac
time henticis & dissinticis. w. murtili. balauitic
psidie. symphim. sanguis dracomis. boli. acacie. y
poquistidol. ros. tartari. sumac. croci. galle nusc
tate. galle. cinnamom. spodu. macis. gūm. ara
bici. aii. z. i. opu thebain. z. s. cum succo cimarū
myrti. & lentia tempa. & pillal fac in modum
orob. da cr. ille. w. ul. ri. cum aq. w. ul. plumali

Pille de quinqz gūbz uirabol. ualent. arteti
cil. podagricti. speneticis. & ad usum recupe
randum. colam adustam purgant. w. uirabol

The following extract for pills, intended respectively to improve the vision, to take before food as a stomachic, and to check dysentery, are taken from section (b) the Dispensatorium of Nicolaus.

MS. National Library 18.6.9, f. 24^v (*for original, see page 74*).

Pillule optomere i de viij specicbus humores epissos de capite deponunt et visum oculorum clarum esse faciunt cataractas prohibent \therefore ¹ i facimus R aloes diagridii amborum \mathfrak{z} ii coloquintide nitriorum epyterii cretici agarici mastici kebuli absinthii omnium vi \mathfrak{z} i terantur et cum succo strigni in modum cicericis informentur. Dentur ex eis ix vel xi mane aut vespere cum vino.

Pillule ante cibum. R cardamomi gariofli cinnamomi galange nucis muscate zedoarum \mathfrak{z} z. ligni aloes epice mastice ana \mathfrak{z} i lapidis lazuli \therefore s. reubarbari \therefore i.

Pillule stiptice contra omnem fluxum ventris maxime lientericis et dissintericis R mirtilli balauttie psidie symphini sanguis draconis boli acaue ypoquistidos rose tartari sumac croci gallie muscate galle cinnamomi spodii macis gummi arabici ana \mathfrak{z} i opii thebaici \mathfrak{z} s. cum succo cimarum myrti et lenticis tempera et pillulas fac in modum orobi. Da ex illis ix vel xi cum aqua ro. vel pluviali.

The following extract (*for original, see page 73*) is a prescription for a remedy against the stone, from treatise (c):—

R Pulveris probatissimi contra lapidem. Feniculi uncias iiij gingiberis uncias 4 (?) anisij unciam z ² liquoris unciam z cimim unciam z carui unciam i petrosillimi unciam i saxifragii unciam i senc unciam i ct semis milij solis unciam i nucis et macis unciam i ³ piperaisinis fenegri oleum oliveri liberum inceneris cervici cereus.

The following extract (*for original, see page 76*) gives prescriptions for a laxative fomentation and for clysters, from section (d), by Master Walter de Agelon:—

De Fomentis.

Fomentum laxatum sic fit.

Violarum \div iii csule laurcole catapucerie titumalli ana li. s. mercurialis malve ana li. ciclamini \div ij seminis fenugreci seminis aloes seminis lini ana \div iiij in aqua et oleo bulliant donec herbe marcescere videantur et fumes recipiatur et cum aqua tepucrit abluatur circa inferiora fomentum egrotationem provocat et emordidas si quis eas consueverit habere.

De Clisteris.

Clisteria aliqua mollificativa aliqua mordicativa mollificativum sic fit. R viole malve mercurialis furfuris tritici ana l. i. in aqua bulliant que coletur et tepida iniciatur. Aliud mordicatum R salis armonici \mathfrak{z} s. ⁴ scamone piretri ana \mathfrak{z} s. l. i. aqua bulliant cum colatetur iniciatur. Aliud mollificativum R seminis lini fenugreci ana \mathfrak{z} i bacce ursine aloes ana \div s. ⁵ l. i. aqua bulliant donec semina mollia fiant que colata iniciatur pro clistere.

¹ \therefore = ounce.

² z = $\frac{1}{2}$.

³ In the margin opposite "piperaisinis" there is a word undecipherable.

⁴ \mathfrak{z} s. = $\frac{1}{2}$ drachm.

⁵ Probably \div ; = ounce.

Du pinton est cest liure ipelle ceo est
 la dure bien esgrie. car, mya rienn
 est. ic en cest liure ly ne est esgrie. p
 memēt durrū de la tette e p dāra. et
 rēbret. p memēt de color de la tette.

Dolor de la tette alafuz est en aue
 la teste. e dē est apele cephalaea. ou
 cephalargia. ou toda. Alafūz est en mi
 lu de la tette e dē est apele emigranea.
 Auis auēt en dūis lū de la tette sojōc
 les āre. cōplernōt. car color de tanc est
 d frōt. e colre. en la dētre pt. de fleu
 me est p dētre. e de melancolie est en
 la fenestre pēye. La aue de color de la
 tette est sīla gārie est de sanc soulemēt
 ly le patiēt seie sēme de la veine caputale
 en la cōreie pēye de la dolor. E sēdie ly
 icouēt ly le patiēt se gāre de rē manger
 ou bojur. e e p memēt de vin. e mē lū dūis
 dūis souē. La aue de color ly auēt
 p cōreie tūis e p cōreie hōre. est uelē
 ceo est alāū ly le patiēt se gāre de lōges
 nankel e de me e de cūpāme de tēme. e
 sēdie ly auēt dūis. p laue dūis de
 phylagāre. ly mē vāre a dē dūis de la tette
 de la tette ly le patiēt seie sēme de la veine
 en le frōt. ou de la veine ly est dē dē le

As annos docto
 rem fuerit tota a
 oles posato frona
 illimita dolorem
 tollit

Dolor de la
 tette de mē
 Gāre p rōs
 puer a lū dūis
 e cōpāme e
 sēdie Gāre

p rōs dūis
 dūis e
 mē dūis
 dūis e
 dūis e
 dūis e
 dūis e

29. A Dolom de tette d'apud on est form p rōs p rōs
 rān cānūmū a hōre e sēdie sēdie sēdie sēdie
 et e p rōs et hōre p rōs e p rōs e p rōs
 Gāre e d'apud et hōre p rōs p rōs p rōs
 sū lū dūis et dūis dūis dūis dūis
 Gāre e sēdie sēdie p rōs cānūmū

NORMAN-FRENCH COPY OF RECIPES
 This deals with headache. 14th century copy
 (MS. National Library of Scotland, 18.6.9, folio 81 recto)

Pour
doux
guy

Pour un
foye & est
de la
& d'au
passions

leure p' alial. ou mett' vendouies en le oil
e de souz la teste. e poÿ aler e lesser. vian
des ly enfler. E sacher h' acetonies cho
ies misent a rebz h' ad coloz de la teste
e encheson del estomac. La cure de do
loz de la teste de fireid encheson. de ma
tie de melancohe. q'nt la coloz est for
de. P'net milu. e broillet desure v
ne chaude ruyte. e p' metet en vn sa
thel e raet la teste. e metet le sur la
teste. Au^e espue. p'net li. s. ce amf
e metet en ealbe chaude. en creis sachel
e metet vn sur la teste. e vn au^e desu.
lozaylle. la ou la coloz est. Au^e espue
escorbet vn resne moton e metet la
pel chaude sur la teste. vn ioz e vne
myr. Si la coloz ne cesse mie vnore.
Lauer la teste ouez cette ealbe. d'islet
la racine de curibze sauvage en ealbe.
e en oyle e de ceo lauer la teste. p' en beu
et la teste ouez ces oyles. p'net oyle de
camo. oyle de pullgole. an. li. s. oyle m'
cellm. $\frac{1}{2}$. m. medlet ensemble. e de ceo
chaud enojnet la teste. e enbauct. e
de ces oyles metet en lozaylle de cele pr
ou la coloz est. e plonger la ayle leins

The following extract (*for original, see pages 77 and 78*) is taken from the Norman-French part of the manuscript, section (g), and deals with headache (dolor de la teste), its causes and its cure by bleeding, cupping and the application of milium, anise and the skin of a lamb, and by various internal remedies:—

Norman-French MS.

Euporiston est cest livre apele ceo est a dire bien esprove car mya riens escrit en cest livre ki ne est esprove premierement dirrum de la teste e plus dautres membres premierement de dolor de la teste.

Dolor de la teste alafoyz est en tute la teste e donc est apele cephalaea ou cephalargia ou soda. Alafoiz est en milu de la teste e donc est apele emigranea ausi avient en divers lus de la teste solonc les quatre complexions car dolor de sanc est el front de colre en la destre part de fleume est par deriere e de melancolie est en la senestre partye. La cure de dolor de la teste est si la materie est de sanc soulement ke le patient seit seine de la vein capitale en la contrere partye de la dolor. E sachet ke icovient ke le patient se garde de trop manger ou boyvre e nomement de vin e mult levant dormir sovent. La cure de dolor ke avient par certain tens e par certain heure est icele ceo est asavoir ke le patient se garde de longes pensees e de ire e de cumpaynie de femme. E sachet ke avicenne dit par lautorite de philagorie ki mult vaut a destrure dolor de la teste ke le patient seit seine de la veine en le front ou de la veine ki est dedens le levre par aval ou mettre ventouses en le col e desouz la teste e poy aler e lesser viandes ki enflent. E sachet ke acetouses choses misent a cely ki ad dolor de la teste par encheson del estomac. La cure de dolor de la teste de freid encheson de materie de melancolie quant la dolor est forte. Prenet milium ebroillet desure une chaude tuyle e plus metet en un sachel e raet la teste e metet le sur la teste. Autre esprove prenet K.s. de anis. e metet en eawe chaude en treis sachels e metet un sur la teste e un autre desur loraylle la ou la dolor est. Autre esprove escorchet un iefne moton e metet la pel chaude sur la teste un ior e une nuyt. Si la dolor ne cesse mye uncore lavet la teste ovekue cette eawe quisset la racine de cucumbre sauvage en eawe e en oyle e de ceo lavet la teste plus enbruet la teste ovekue ces oyles prenet oyle de camo. oyle de pulleole ana li. s. oyle muscellin ⁺ iiii medlet ensemble e de ceo chaud enoynet la teste e enbruet e de ces oyles metet en lorayle de cele part ou la dolor est, eplonget lorayle leins (plus surmetet la pel de moton).

(5) The book of Serapion on simples, and the theory and practice of medicine of Constantine, is a large Latin vellum manuscript, 12 × 8½ in., with 251 folios in double column, containing each from 45 to 47 lines. It is bound in thick boards covered with stamped leather and closed by two brass clasps. It dates from the 14th century.

Works on
simples and
medical
practice

It consists of two parts: (a) The book of Serapion (an Arabic writer on medicine) on simple medicines. This formed a favourite medical text-book of the middle ages, and numerous manuscripts of it are extant. It purports to be a translation by Symon Ianuensis (of Genoa?) from Arabic into Latin, with the help of Abraham, a Jew of Tortosa, in Spain. It is in two sections, of which the first treats of simple remedies and the second of plants, minerals and animals, preceded by an alphabetical index, and it covers 122 folios.

(b) The theory and practice of medicine of Constantine is contained in two treatises, each preceded by an index, and they together make up one treatise, called "Pantegnum," which covers 129 folios. This is dedicated by the scribe to his lord and most reverend father, the abbot Desiderius of Monte Casino.

¹ Probably $\frac{1}{2}$ = ounce



MONASTERY OF INCHCOLM

The two-storey building in the foreground is the 15th century hospital of the monastery
(From an 18th century, drawing K.49, 87, 16, in the King's Library at the British Museum)

CHAPTER IV

MEDICAL PRACTICE IN THE FIFTEENTH CENTURY

IN the 15th century much increased interest was taken in the healing powers of the medical art, and there was general progress with a tendency throughout Europe for medicine to become more scientific. In England, Thomas Linacre (1460-1524) studied medicine in Italy, practised under Henry VII. in London, and founded the Royal College of Physicians. In Italy, Lorenzo de Medici, the Magnificent (1448-1492), was an assiduous collector of medical manuscripts, and he, as well as other princes, did much to encourage this branch of learning and to foster the study of anatomy at Florence. In France, Paris and Montpellier were important schools of medicine, and the treatises of Guy de Chauliac on surgery (1363), and of Bernard Gordon on medicine (*circa* 1307), had appeared in the preceding century.

15th century
medical
advances

It is natural, therefore, that physicians, provided with translations of the well-known medical works, should be found in Scotland in the 15th century. Moreover, this was the century of the foundation of the Scottish Universities: St. Andrews (1411), Glasgow (1453), and Aberdeen (1494); and at each of these some of the clerical teachers had probably made a special study of the medical manuscripts available to them.

In the year 1431, Paul Cwarar, a German from Bohemia, came as a medical missionary to Scotland, bearing with him letters of recommendation which described him as excelling in the art of medicine (*præcellens arte medicinæ*). He is described by Walter Bower, Abbot of Inchcolm,¹ as ready and conversant with sacred literature and with the mission of the Bible, but as having held pertinaciously by the erroneous beliefs of Huss and Wyclif. Having been confuted by Laurence of Lindores, the inquisitor of heresy, he was convicted at St. Andrews on 23rd July, 1433, and burned at the stake with a brass ball in his mouth. It was not unnatural for Sir James Balfour, writing after the Reformation, to describe the Abbot of Melrose who presided at the trial, as a "huberdly mounke."² Paul Cwarar was not the last medical missionary who has suffered death when attempting to combine the healing of the body with the teaching of a new belief.

Paul Cwarar,
medical
missionary

About the same time, Master James of Germany was in attendance upon King James I., and received, in 1431, the handsome payment of £20 by a letter under the king's seal.³ He evidently occupied a position of great regard in the court, and apparently attended Queen Joan, for in 1436 he was the recipient at her

15th century
physicians
and fees

¹ Bower: "Scotichronici continuatio," Cap. XX.

² "Works of John Knox," Edit. by David Laing, Edinburgh, 1846, Vol. I., p. 6, and Appendix, p. 497.

³ "Exchequer Rolls of Scotland," Vol. IV., p. 541.

instance of several handsome presents, including ostrich feathers, two fur mantles, and twenty-four ells of purple cloth, valued at £44 5s.¹ The same Master James was still in attendance at the court during the reign of James II., in 1453, when he was receiving a salary at the rate of £20 per annum.²

Another physician mentioned in the reign of James II. is Christian Leche, who in 1444 received £3 6s. 8d. for the cure of a friend of the king dwelling with Lord Colin Campbell,³ and to whom the rents of Scoulogmore were regularly allowed.⁴

A person who occupied a more prominent place in the court circles of James II. and James III. was a physician who boldly assumed to himself the classic name of Serapion (perverted by the good folk of Edinburgh into Ciriapion). He received regular payments of £20 per annum;⁵ and, in addition, there is mention of various gifts, such as a horse, saddle and bridle, costing £3 8s., given him by James II. in 1460,⁶ and 30s. for drugs supplied to Queen Mary of Gueldres in 1462.⁷ In 1460 he had to be summoned to St. Ninians, for which he received a fee of £4 10s.⁸ He may have been the royal physician, not mentioned by name, but described as "of Venice," to whom a special payment of £15 was made in 1455.⁹

David Cranoch was a physician who obtained a box of drugs and chemicals for King James II., for which he received a payment of £20 in 1457, as well as a fee for his services.¹⁰

A physician who had followed Queen Mary from Gueldres, received a fee of £10 in 1461,¹¹ and Serapion appears to have been succeeded in regular employment at the court by Master William, a physician (probably William Schevez), who received two payments of £25 in the year 1466.¹²

A certain Dr. Andrews, who is described as a doctor and physicus, and who had acquired a reputation in the Low Countries as a soothsayer, spent some time at the Scottish court in the reign of King James III. He affords an illustration of the great amount of intercourse which went on at this time between Scotland and the Netherlands. In 1470-71, he was in attendance as a physician on the Scottish court, and received a salary at the rate of £20 a year.¹³ A gown of French black was provided for him by the king's command.¹⁴ There is a record that he was fetched to Scotland at the king's command by David Whitehead and Thom of Stanley, to whom a sum of £16 was paid in 1473 for their travelling expenses and other fees in this connection.¹⁵

¹ "Exchequer Rolls of Scotland," Vol. IV., p. 679.

² Op. cit., Vol. V., p. 586.

³ Op. cit., Vol. V., p. 173.

⁴ Op. cit., Vol. V., pp. 164, 167, etc.

⁵ Op. cit., Vol. VI., pp. 3, 12, etc.

⁶ Op. cit., Vol. VI., p. 641.

⁷ Op. cit., Vol. VII., p. 150.

⁸ Op. cit., Vol. VI., p. 625.

⁹ Op. cit., Vol. VI., p. 6.

¹⁰ Op. cit., Vol. VI., p. 309.

¹¹ Op. cit., Vol. VII., p. 49.

¹² Op. cit., Vol. VII., pp. 423, 424.

¹³ Op. cit., Vol. VIII., p. 124.

¹⁴ "Accounts of the Lord High Treasurer for Scotland," Vol. I., p. 48.

¹⁵ Op. cit., p. 60.

At a later date, when he was back again in the Low Countries, he was visited in 1477 by Scottish ambassadors sent by their king to Charles, Duke of Burgundy, on behalf of some Scottish merchants who had been disturbed in their trade. Andrews, having entertained the Scotsmen to supper, advised them not to make undue haste on their embassy, for, as he said, in a few days they would hear news of the Duke which would render their journey unnecessary. Three days later the Duke's army was defeated by the Swiss at Nantz in Lorraine, and the Duke was killed,¹ thus strengthening the reputation of Andrews as a soothsayer. Another prediction attributed to him in Scotland was his warning to James III. that a lion would be killed by his whelps,² which as regarded James, was fulfilled when the king was murdered at Sauchie after the battle with the Scottish barons led by his son.

The best known medical practitioner of the 15th century in Scotland was William Schevez (*circa* 1428-1497).³ His career gives a good idea of a mediæval cleric practising the art of medicine. He was a man of somewhat humble origin who belonged to Fifeshire, and whose brother was proprietor of Gilquhas before 1475, and later Provost of St. Andrews. William Schevez studied at the University of St. Andrews, which had been founded some forty years previously, and afterwards at the celebrated University of Louvain. In the latter school he was instructed especially by John Spernic, a celebrated physician and astrologer, who was later rector of the University of Louvain and "*medicinæ doctor et physicus.*"⁴

William
Schevez,
churchman
and physi-
cian

After returning to Scotland, Schevez practised medicine and was at least interested in astrology, which was then a pastime of the curious and a matter of faith with the credulous. The interest of Schevez in astrology is indicated by the fact that, in 1491, Jasper Laet dedicated to him his book on astrology, in which he refers to Schevez as proficient in every kind of literature, profound in learning, the founder at great expense of a valuable library in St. Andrews, filled with books of every kind, and one who had brought from the darkness of obscurity the mathematical sciences which, through the negligence of the Scots, had become nearly forgotten.⁵

His interest
in astrology

For a time, apparently in earlier life, Schevez acted as Master of the Hospital at Brechin,⁶ and in this capacity, he probably attracted the royal notice by his medical abilities.

By the year 1471, Schevez was practising as a physician at the court of King James III., where he had an annuity of £20. He received this salary during four years, although, by 1474, he had been appointed Archdeacon of St. Andrews.⁷ He still continued to order "*certane potigarriis*" for the king, and he prescribed green ginger for Kirkcaldy and Wille Pringill at different times.⁸ Schevez was

His practice

¹ Buchanan: "History of Scotland," Edinburgh, 1752, Vol. II., p. 76.

² Buchanan: *Op. cit.*, p. 77.

³ For an account of the life of Schevez, see Herkless and Hannay, "Archbishops of St. Andrews," Edinburgh, 1907, Vol. I., p. 80 *et seq.*

⁴ Buchanan: "History of Scotland," Edinburgh, 1752, Vol. II., p. 74.

⁵ Lyon: "History of St. Andrews," Edinburgh, 1843, Vol. II., p. 343.

⁶ Register of the Great Seal, II., 1358.

⁷ "Exchequer Rolls of Scotland," Vol. VIII., pp. 120, 190, 253.

⁸ "Accounts of the Lord High Treasurer for Scotland," Vol. I., pp. 21, 23.

apparently on such intimate terms with His Majesty King James III. that he looked after his wardrobe and other personal affairs, making payment, for example, for "the sewing of the king's sarks," for the purchase of velvet, and for the silver ornaments of the harness of three of the king's horses.¹ At the same time, the king bestowed various intimate gifts on Schevez, such as oats for his two horses, chamlot for his gowne, and velvet to make a doublet.²

On his appointment at St. Andrews, according to Buchanan,³ Schevez immediately came into collision with Bishop Patrick Graham, who refused to admit him to the archdeaconry; but by 12th July, 1474, Schevez had paid the dues and was firmly established in the post. He had been a fellow-student with Graham at St. Andrews, and the latter, some years later, formed an interesting mental case under the care of Schevez.

Ecclesiastical
preferment

In addition to his clerical duties at St. Andrews, Schevez was made Provost of the Church of Crichton, and he continued to act as a notary public and to sign documents for the king.⁴ As an archdeacon, he sat in the Scottish Parliament. By 1476 he was acting as vicar-general, although still attending to the business of the king, and during an investigation which in that year took place into the conduct of Archbishop Patrick Graham, he was appointed coadjutor to carry on the duties in the See of St. Andrews. When, as a result of the investigation, Graham was deposed in 1478, Schevez became his natural successor, acceptable to both the king and the pope, and was duly appointed Archbishop of St. Andrews.



MEDAL STRUCK IN 1491, SHOWING BUST OF WILLIAM SCHEVEZ
(From a cast in the National Museum of Antiquities of Scotland)

During the latter part of his life Schevez had a stormy course to steer. The general regard in which he was held, as well as his ecclesiastical position, exempted him from the fate of Cochrane, Rogers and the other favourites of James III., who

¹ "Accounts of the Lord High Treasurer for Scotland," Vol. I., pp. 18, 28.

² "Exchequer Rolls of Scotland," Vol. VIII., p. 182; and "Accounts of the Lord High Treasurer for Scotland," Vol. I., pp. 56, 58.

³ Buchanan: "History of Scotland," Edinburgh, 1752, Vol. II., p. 74.

⁴ Herkless and Hannay: "Archbishops of St. Andrews," Edinburgh, 1907, Vol. I., p. 86.

were summarily hanged at Lauder in the rebellion of Archibald Bell-the-Cat and his fellow-conspirators. Schevez appears to have been consistently loyal to James III. in his difficulties, and when this king was murdered at Sauchie in 1488, Schevez came under a cloud in the early years of James IV.¹ He seems before long, however, to have gained the favour of James IV., and, in 1491, was appointed by the pope Primate of Scotland and *legatus natus* of the Holy See. On this occasion a medal was struck which shows the bust of Schevez. He died on 28th January, 1497.

A great love of books was a distinguishing feature of this cleric who, in his early days, paid special attention to the practice of medicine, and who rose to be the Primate of Scotland. He apparently founded a library in the University of St. Andrews, of which a few books, mainly theological, are still extant. The extent of the efforts made by Archbishop Schevez in the collection of his library is indicated by the large sum of 500 gold crowns (£141 13s. 4d.) paid on his behalf by Andrew Halyburton, Scottish agent at Middleburgh, in Flanders, to Master James Watson for books brought to Schevez from Flanders in the year 1493.² Two of his medical works are preserved, one in the British Museum and another in Edinburgh University Library. These are manuscripts of great beauty, and as Schevez had the foresight, rare in the Middle Ages, of writing his name in the books which belonged to him, the identity of these is readily established.

The British Museum medical manuscript is a vellum MS., octavo size, of the 13th century, and of Flemish origin, beautifully bound in stamped leather with blind tooling.³ It was evidently a cherished handbook of Archbishop Schevez which he had probably brought back with him from Louvain, and is a collection of four medical tracts translated from the Greek into Latin. These are: (1) The Antidotarium of Nicolaus; (2) the Lyber Graduum by the same author, which is an alphabetically-arranged list of remedies with remarks on the cases for which they are applicable; (3) the Lyber Aureus of Johannis Afflaticius, the son of Constantine; and (4) an Antidotarium giving a list of remedies. These works had been produced by teachers of the school of Salerno.

The following translations from passages in the manuscript give an idea of the remedies used by Schevez and others who practised medicine in Scotland in the 15th century. The first two paragraphs, taken from the Antidotarium of Nicolaus, deal with the method of treating an abscess:—

Medicine for maturing an abscess. Place lard and turpentine resin in water, emulsify and dissolve them; when this has begun to boil, add balls (?) of wheat and place this in a bag, spun from the linen plant, upon the parts which have been already steamed from a sponge. For the same, take mistletoe and fenugreek boiled with sorrel; this is of advantage when applied. Garlic and soda ground with honey and applied is also excellent.

Medicine for rupturing an abscess: Rub up frankincense and sandarac with lime and honey and apply. Powder of woad with French soap boiled to a thick consistency works wonderfully.⁴

¹ Fraser: "The Lennox," Edinburgh, 1874, Vol. II., p. 128.

² "Ledger of Andrew Halyburton, 1492-1503," Edinburgh, 1867, p. 6.

³ British Museum, Additional MS. 26622.

⁴ MS. 26622, f. 30 r.

Lyber
Graduum

The following paragraphs dealing with opium, salices, sulphur and ginger are taken from the Lyber Graduum by the same author and give an idea of the *materia medica* of important drugs. Some of the remedies whose uses are detailed in a similar full manner are amber, almond, anise, alum, arsenic, antimony, betony, camomile, cassia, crocus, coral, colocynth, camphor, caraway, cardamoms, calx, hellebore, euphorbium, iron, gentian, gladiola, iris, lily, lapis lazuli, manna, mastic, mint, mummy, magnetic stone, nitrum, nasturtium, opoponax, pepper, tar, rue, storax, sumach, sandalwood, staphisagria, sagapenum, mustard, terra sigillata and violet.

Opium, cold in the 4th degree or in the 2nd, when it is taken in the form of a chickpea it stupifies the sense of a man so that he cannot feel, and calls forth sleep; it is useful for people with a cough, and it is given in modified doses for those showing added dissolution. Nevertheless, when a large quantity of it has been taken, the height of the natural warmth is extinguished, especially in those whose natural warmth is defective, and when it is accidentally taken by them without tasting; for to these it is fatal. But a little opium with oil of roses rubbed into the forehead relieves choleric headache when it is present without catarrh; mixed with almond oil and a little wax or myrrh and dropped into the ears, it relieves earache; it is moderated with vinegar and used in a plaster to extinguish the burning of erysipelas; in a plaster with milk and warm wax, it removes the pain of gout. Mandrake does the same thing.¹

Salices (willow bark), cold in the 2nd degree or in the 1st, it is useful for pain of the liver; it is placed in the ears warmed; its juice consolidates wounds; its bark burned and modified with vinegar helps warts and scabs. The milk of the bark from willows bearing flowers clears the vision and comforts defective eyes; the juice of the young shoots and fruit taken in large drafts by a woman prevents conception, and drunk moderately checks bleeding.²

Sulphur, warm and dry in the 4th degree; warm 5 oz. of sulphur; it matures a long-continued fever and cough; it gets rid of matter from the chest; mixed with vinegar it cures scabies, impetigo and alopecia. Moreover, if a tree of lemons is smoked with it all the lemons fall; a rose or red clothes smoked with it become of a white colour. Mixed with honey and soda, it is useful against chronic scabies, pustules and itching; injected, it prevents the sweat of a sick man; mixed with soda and water, it alleviates the gout. Aristotle said that sulphur water for washing the body was good against the pustules of scabies and impetigo. It cures the bites of reptiles and of the lion, long-continued fevers, melancholy and pain. It stops discharges which prevent conception.³

Ginger, warm in the 3rd degree and moist in the 1st degree: it dissolves flatulence in the intestines and makes the belly moist. Two parts of it with two of sugar purges viscous humours, increases desire, helps the food to warm the stomach, dries up superfluous moisture of the stomach caused by fish or fruits. This can be replaced by white or long pepper.⁴

Lyber
Aureus

The Lyber Aureus of Johannis Afflaticius, the son of Constantine, begins with a long account of various nervous diseases, such as headache, inflammation of the brain, apoplexy, paralysis, tetanus, tremor, lethargy, frenzy, deafness, neuralgia. It is interesting to note that this part of the MS. shows marks of much usage and

¹ British Museum, Additional MS. 26622, f. 98 v.

² MS. 26622, f. 104 v.

³ MS. 26622, f. 107 v.

⁴ MS. 26622, f. 111 r.

has a bookmark permanently turned in at the beginning of the sections dealing with nervous diseases. Its owner apparently paid special attention to this department of medicine.

Various articles follow on colic, vomiting, hiccup, diarrhœa, hæmorrhoids, cessation of the menses, difficult parturition, leprosy, a long article on hectic fever, and a still longer article upon the appearances of the urine in various diseases. The following is a translation of the paragraph on inflammation of the brain:—

On inflammation (of the brain) : There is another disease, which is called inflammation of the brain, in which the passages of the brain are opened beyond measure. This disease is very bad so that it kills men within seven days. If, however, they escape these, the following are the signs of this disease : Swelling with inflammation, the temples raised, the hearing obtuse, veins dilated and pulsating, fever, pain, neither greater nor less redness in the countenance, the eyes protrude as in strangling, the face swells with the whole head, the back and neck suffer at times from the same swelling, the skin crackles and sometimes vesicles appear as if from a burn. These people are bled with difficulty from the cephalic vein and much blood is extracted; then, if the strength permits, veins are opened round about the nostrils or under the tongue or the vein which lies along the great toe. Wine and oil of roses is placed upon the head, the head is shaved and a plaster applied with bread or flour boiled with oil and water, or of linseed similarly boiled. Let the bowels be gently opened, and, because in this disease the voice is lost from pain, let the patients be treated as described under quinsy. A diuretic also helps to this end. If pain arises from constipation of the passages, let the patient be anointed with oil of camomile or rue or laurel. Take the berries (of laurel) place them in water and boil; collect the froth from the surface, place it in the sun so that it may thicken, and this is the oil of laurel. If pain arises from a blow or a fall or from inflammation, and no tumour appears on the surface, the condition is dangerous. Let the patient therefore be bled and receive a clyster directly, then let the head be fomented with sponges or wool steeped in warm oil; those things help which we have mentioned as advantageous for inflammations.¹

The following paragraph on the treatment of leprosy gives an idea of methods employed for this in the Middle Ages. The recourse which the author has to futile remedies like the ointment of serpents and the blood of a tortoise, shows the helplessness which then prevailed in dealing with this serious disease:—

On leprosy. Leprosy is dillicult to cure, for this reason, that when it is recognised it has already invaded the body for a long time. At the beginning, and if it can be recognised shortly after the beginning, it may be purged naturally thus : (*then follows a prescription containing colocynth, squills, mushroom, scammony, hellebore, bdellium, aloes, hypericon leaves, cassia, pepper, cinnamon, myrrh, opoponax, petroselinum, absinthe, cuforbium, ginger, gentian and honey*). Hierarusinum with scammony is of great use to lepers. An ointment extremely useful for this is as follows : three black serpents are caught, their heads and tails to the measure of three fingers are cut off and their middle portions burned in a new pot; white soap and oil are added and they are rubbed up in a mortar until thick like honey. The material is applied for three days, and the part is washed. If any of the infirmity is left on the patient, cut off the head of a tortoise, collect its blood and anoint the affected parts with a feather; thereafter dig a pit, cover it with a cloth, light a fire in it, let the patient be thoroughly heated three times in the day, and when he comes out let him be covered with new clothing; let this be done for two days and each time he comes out from the pit let him be anointed with an ointment. (*Then follows a prescription for an ointment of salvia, rosemary, absinthe, etc., in lard or bear's grease.*)²

¹ British Museum, Additional MS. 26622, f. 114 v.

² British Museum, Additional MS. 26622, f. 130 r.

The manuscript of Archbishop Schevez preserved in Edinburgh University Library is a commentary by Geraldus de Solo on the "Ninth Book of Almansor," and is a Flemish MS. of the 15th century, specially copied for William Schevez. The "Ninth Book of Almansor," an Arabic writer, was, in Latin translations, a favourite text-book of this time, and is commented upon by various writers.

MS. of
Geraldus
de Solo

It may be regarded, with its commentaries, as a useful and practical treatise on what would be called minor medicine at the present time. It is only when the writer comes to deal with diseases which he does not understand that he begins to prescribe remedies which appear, in the fuller knowledge of modern times, to be useless, fatuous, or absurd. This characteristic, however, is by no means confined to mediæval writers on medicine. The book deals with the following subjects, as well as others of less importance, and after each short section of the original a commentary follows in the usual manner.

It begins with headache and hemicrania, scotoma and vertigo, frenzy, paralysis, stupor, tremor and spasm.

Epilepsy has a long portion of the book, and, in his remarks Almansor suggests that to prevent it the limb in which movement begins should be tightly bound; that a sinapism on the affected part is of advantage; that for vomiting in this condition a plaster of spikenard and rose applied to the stomach, and odorant wine given internally, are productive of benefit; blood-letting is in general recommended and its appropriate sites indicated; the patient is directed to abstain from flesh and wine and from everything which would generate much blood. Exercise and rubbing of the lower limbs are also commended.

Other conditions described are melancholy, catarrh, ophthalmia (in connection with which directions are given how to reverse the upper lid). Pain in the ears, including tinnitus and deafness, epistaxis, loss of smell, and toothache (for which the writer mentions an application to loosen the teeth for a week before extraction is attempted).

The book then goes on to give an account in different sections of various diseases, including disorders of the gums, tongue and mouth, quinsy, cough, asthma, pleurisy, pneumonia, hæmoptysis, phthisis, tremor of the heart, disorders of the stomach (a long section), hiccup, jaundice, dropsy, pain in the spleen, iliac passion, diarrhœa, difficulty of urine, stone, hæmaturia, heat of urine, flux of urine, worms, hæmorrhoids, prolapse of the rectum and uterus, excessive menstruation, modes of producing menstruation, abscess in the womb, ulcer and cancer of the womb, sterility, hernia, gout, curvature of the spine, varicose veins, elephantiasis and, finally, pains in the hands or feet.

15th century
case of
lunacy

While William Schevez was Archdeacon of St. Andrews, his advice and care were required in the very difficult case of his ecclesiastical superior, Archbishop Patrick Graham. Graham had been a fellow-student at St. Andrews with Schevez in the years 1452-1454. He was a nephew of James Kennedy, Bishop of

aridus propter locum in barchinensi
 et a... in... quibus...
 pcedat... emptus quod
 ponit in quo... frequenter
 su... in... in...
 bu... agitur...
membrum ponit cura qui
 demacit...
 curat...
 fuit...
 alio...
 et ex...
 ge...
 dolor...
 p...
 demacit...
 bro...
 ad...
 oppilata...
 rone...
 et...
 et...
sub ponit cura qui...
 a...
 ffior...
 at...
 cu...
 curio...
 fuit...
 d...
 cu...
 cu...
 d...
 d...
 ut...
 loca...

in...
 fluita...
 no...
 m...
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 bro...
 q...
 aut...
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Crantem ponit cura qui...
 no...
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 in...
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 ita...
 h...
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 ca...
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 p...
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Lib^o Quintus...
 ...
 ...

NINTH BOOK OF ALMANSOR, WITH COMMENTARY BY GERALDUS DE SOLO
 15th century copy made for William Schevez. This page shows the signature of Schevez at the end of the second column
 (Edinburgh University MS.)

St. Andrews, and a great-grandson of King Robert III. He thus started his career in the church with the most favourable auspices, at a time and in a country where family influence was all-important. Even as a student his path was smoothed by his creation as Canon of Aberdeen and Moray.¹ By 1463, when he was about twenty-five years old, he had been made Bishop of Brechin, and here again he probably came in contact with William Schevez, who was Master of the hospital in that town. In 1465 he became Bishop of St. Andrews on the recommendation of King James III.

He showed no particular evidence of precocious intellectual or administrative ability, but from an early date attracted attention by attempts to attach numerous benefices to his own person, and by a readiness to quarrel with his subordinates. Malcolm Brydy, Abbot of Arbroath, complained bitterly in 1470 because of his imprisonment by Graham, and because Graham, at his visitations, had been accompanied by one hundred or even by two hundred horsemen, who wasted the goods and money of the abbey. For his conduct in this matter Graham was severely reprovved by Pope Paul II., and admonished to abstain from presumptuous conduct.

Next year Graham went to Rome to appeal against an Act of the Scottish Parliament which had been passed to invalidate the annexation of benefices after the accession of James III. It soon appeared that another and secret object had taken him to Rome, for, while in the Eternal City, he persuaded Sixtus IV., who was now pope, to elevate him to the dignity of Archbishop of St. Andrews, and, as the price for this, he agreed that a tithe of the incomes of all the Scottish clergy should be paid to the papal exchequer for the purpose of a crusade against the Turks. This negotiation was carried through without reference to the Scottish church, king, or parliament, and, in view of the storm raised by the publication of the papal bull, Graham loitered on the Continent till, in 1473, he was summoned by the king to appear before the council at Edinburgh.

Complaints poured into Rome from the king, the chapter, the clergy, the University of St. Andrews and the people of this town and province, and Sixtus IV. was obliged, in 1476, to send John Huseman for the purpose of inquiring into the evidence against Graham, and to appoint three cardinals in Rome to consider the evidence in the case and to report. Graham's twenty years of self-seeking, quarrels and mismanagement appear to have been fully and impartially investigated by the commissioner, and the evidence sealed and sent to Rome. He was found guilty of heresy, schism, falsification of papal letters, simony, irregular life, blasphemy, celebration of masses while an excommunicated person, and perjury. The blasphemy had been repeated in the presence of Huseman, the commissioner, to whom Graham had declared that he was pope, the elect of God, and crowned by the angel to reform the church, and that his legates were to go to different parts of the world.

¹ Herkless and Hamay : "Archbishops of St. Andrews," Edinburgh, 1907, Vol. 1, p. 15

The cardinals recommended that he should be deposed and handed over to the secular power. The pope, perhaps out of compassion, perhaps largely because his own judgment, in having created Graham an archbishop, was impugned by the conduct of the latter, consented to the deposition, but declined to hand him over to the secular authorities. He therefore ordered Graham to be confined in a cloister where he might spend his time in penance and be kept from "wandering as a refugee to the cities and courts of princes or stirring up tumults."

To William Schevez was entrusted the task of conveying the sentence to the deposed prelate, and of taking care of him in his retirement. He was placed first in the Monastery of Inchcolm under four attendants; and three years later, in fear of the arrival of an English fleet, he was taken to Dunfermline and thence to Loch Leven Castle, where he died and was buried in the consecrated soil of St. Serf's Island in that lake.



LOCH LEVEN CASTLE

In which Patrick Graham was detained, and in which Mary, Queen of Scots, in the following century was imprisoned

It is clear that in his prolonged succession of petty quarrels and tyranny, and in the display of complete incompetence to administer the duties of an exalted and sacred office, together with his attitude of regarding as enemies those who naturally opposed his schemes for personal aggrandisement, Graham would at the present day be regarded as a person of unsound mind. This was confirmed by his final delusion that he himself was pope and responsible neither to the people in his charge, to the king, nor to the papal See. Modern opinion would regard him as a paranoiac with delusions of persecution and of personality. It seems very fitting that he should have been consigned to the care of a medical supervisor possessing the ability and integrity which William Schevez showed; but the case illustrates the great difficulty of dealing with unsoundness of mind when it was displayed in high places during the Middle Ages.

As Schevez was becoming presumably too much engrossed in his official clerical duties to carry on regular medical practice, he was succeeded as court physician, about the year 1480, by Master Conrad, who, till the end of the reign of James III., in 1488, received the recognised annual salary of £20 for this post, together with an allowance of £3 10s. for the maintenance of his horses.¹

A medical
course in the
15th century

In 1480, Master Michael Ker, who by his title is shown to have been a graduate of a university and probably a cleric, was sent abroad by the king to study medicine. He was granted an allowance of £20 yearly for three years, which was therefore the period regarded in the 15th century as necessary for obtaining the knowledge of medicine requisite for a physician. He received an extra grant of £9 11s. in 1481.² It is not stated what foreign schools he attended, but his training in the medical profession would consist in a course of reading old authorities on medicine under the guidance of some masters of the art, from whom he would at the same time obtain experience in practice.

¹ "Exchequer Rolls of Scotland," Vol. IX., pp. 75, 290, etc.

² *Op. cit.*, Vol. IX., pp. 69, 155, 289.

CHAPTER V

GAELIC MEDICAL MANUSCRIPTS AND HEREDITARY HIGHLAND PHYSICIANS

AN important phase of early Scottish medicine is found in the Gaelic medical manuscripts which are preserved in some of the libraries of Ireland and Scotland.¹ The Scottish Celtic medical literature comprises over twenty manuscripts preserved in the National Library at Edinburgh, one in the Library of the Society of Antiquaries of Scotland, one in the Library of the University of Edinburgh, two in the British Museum, and several in private collections. They all possess this feature in common—that their substance is mainly of foreign origin, being translations made from Latin. Several of them are translations of medical treatises from the early Greek physicians and philosophers, and others from compilers of the Arabian school; several of them are taken from authoritative treatises issued from the great mediæval medical schools of Salerno and Montpellier. They were prepared for or by Gaelic physicians attached to the great nobles of the north of Scotland, and the oldest dated manuscript which could be found by Professor Mackinnon bore the date of 1403, although this authority admits that some of the undated translations may be earlier in origin. The greater number, however, date from the 16th century. They include such subjects as an abstract of Galen's Anatomy, anatomical descriptions taken from Galen, Avicenna, Lanfranc and Guy de Chauliac, chapters on wounds, attributed to John of Vigo, and frequent paragraphs devoted to blood-letting, with the veins appropriate to be opened and the proper seasons and days for the operation.

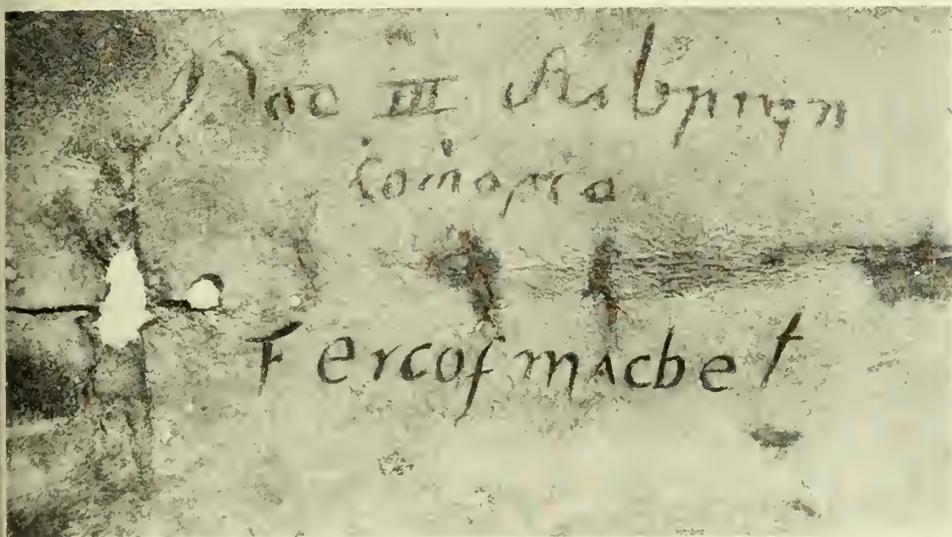
Scope of
Gaelic
medical
literature

The classification of diseases in some of the larger manuscripts is full and elaborate, as well as the remedies prescribed for each disease. Questions of climate, diet, nursing and kindred topics are largely discussed, and in one manuscript a chapter is devoted to the appropriate method of weighing and measuring drugs. Various cases are also included, and several theories believed to influence the health of the individual, such as the elements, the planets and the doctrine of the humours, are subjects of frequent and lengthy exposition and discussion. The margins of the manuscripts are frequently covered with notes, which have probably been added by the possessors of the manuscripts, dealing with the weather during the various months and the foods and drinks most suitable in each.

¹ Mackinnon: Report, 17th International Congress of Medicine, Section XXIII. London, 1913, p. 401. See also "A Descriptive Catalogue of Gaelic Manuscripts in the Advocates' Library, Edinburgh, and elsewhere in Scotland," by Donald Mackinnon, M.A., Edinburgh, 1912; also George Mackay, M.D., "Ancient Gaelic Medical Manuscripts," in *Caledonian Medical Journal*, October, 1901.

These manuscripts mainly belonged to two families, who practised medicine in the Highlands of Scotland for several centuries. The first of these bears the name of MacBheathadh, which means the "son of life," a very happy name for a physician. The name later came to be written in Latin, Betonus or Beaton, and in its modern form Macbeth. Highland
medical
families

The name of this family appears to occur for the first time in the Book of Deer, 11th century, as Macbead.¹ An early member of the family settled in Islay in the days of Robert Bruce, and is said to have obtained so great a reputation



SIGNATURE OF FERGUS MACBETH TO THE ISLAY CHARTER OF 1408

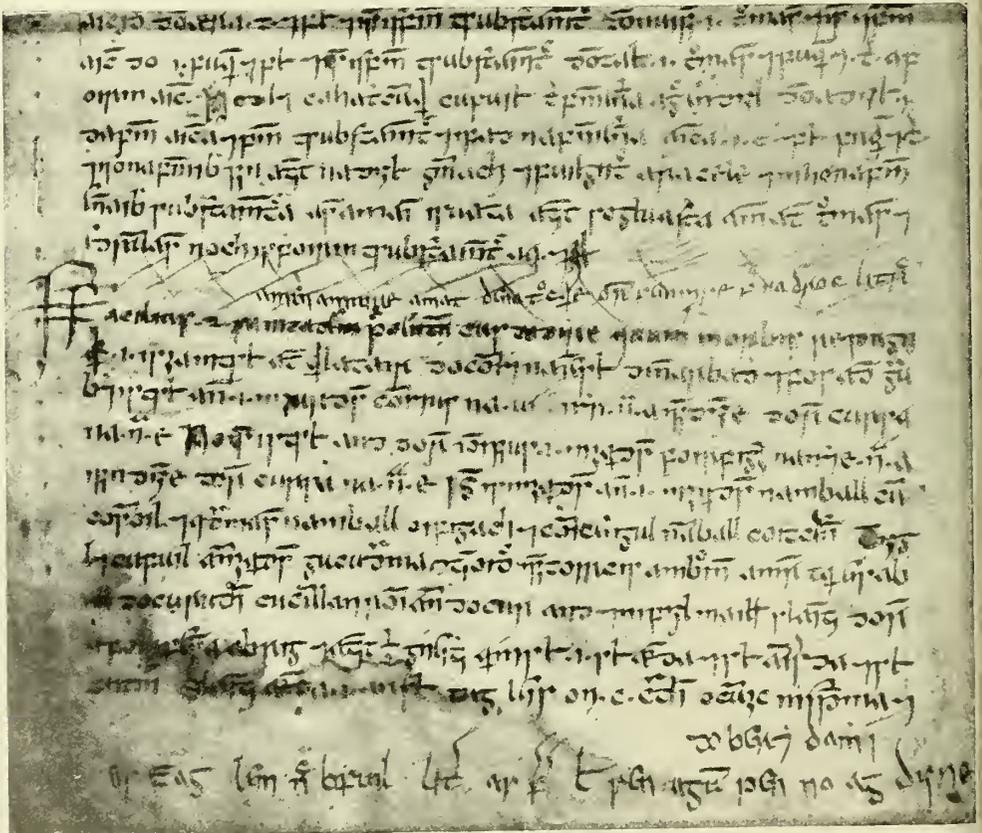
(Original in H.M. Register House, Edinburgh)

that he was summoned to the bedside of the King of Scotland and effected a cure when the court physicians had failed. One of his descendants, Farquhar, who is described as *Medicus Regis*, obtained a grant of the lands of Melness and Hope from Alexander Stuart, "The Wolf of Badenoch," in 1379, and Ferchard Leche, Farquhar the Physician, had a large grant of islands, including Jura and its neighbouring islets, from King Robert II. in 1386. Fergus Macbeth (Fergus the Fair), in 1408, was a witness of the Islay Charter² from Donald, Lord of the Isles, who was defeated at Harlaw in 1411. The physician signed and probably engrossed the whole charter, the other three witnesses merely making their marks. Others of the name were scattered over various parts of the Highlands during the next three centuries.

¹ Gillies: "Regimen Sanitatis," a Gaelic Medical Manuscript, Glasgow, 1911 p. 3.

² *Caledonian Medical Journal*, April, 1902, and July, 1902.

A member of the Beaton family practising in the Island of Mull had an alarming experience in the year 1588. The treasure ship "Florida" of the Spanish Armada, which had escaped the pursuit of the English fleet by sailing round the north of Scotland, put in at Tobermory Bay. Some trouble arose between the Spaniards and the Islanders, and a man Smallet, of Dumbarton, undertook to blow up the ship. Dr. Beaton was on board and happened to be sitting on the upper deck when the magazine exploded. The deck "was blown up entire, and thrown a good way off, yet the Doctor was saved and liv'd several years after."¹



GAELIC MEDICAL MANUSCRIPT

which belonged to Malcolm M'Beath of Skye, and shows a later scribal note inserted between two paragraphs
(National Library of Scotland, MS. II.)

The other hereditary medical family was that of the McConachers of Lorn, of whom there are records as early as 1530. One of these, Duncan McConacher, with the help of friends, made a copy of Bernard Gordon's "Lilium Medicinæ," in 1596-1597, and commenced in 1598 a treatise

¹ Martin : "Description of the Western Islands of Scotland," London, 1703, p. 254.

which was to be an epitome of the teaching of Avicenna. Duncan was the possessor of a copy of the treatise on *materia medica*, preserved in the National Library, containing references to 312 articles. This is the most complete copy of the treatise, which is repeated several times among the Gaelic medical manuscripts, and upon which the Gaelic physicians placed great value. Other copies of it are to be found in the British Museum, the National Library, etc.¹ The copy of this treatise possessed by John Beaton is described below and is illustrated in the Frontispiece. A later member of the Conacher family, Donald O'Conacher, seems to have been so celebrated as a physician that, in 1639, he was brought for a consultation to the town of Irvine.

The manuscripts on Gaelic medicine still preserved in Scotland are some 30 in number, of which the majority are in the National Library at Edinburgh. A few of these manuscripts have found their way to other countries and are preserved in the British Museum and libraries on the Continent. The following is a brief summary of the medical manuscripts in Scotland,² while a fuller account is given of two of those preserved, respectively, in the National Library and in the library of the University of Edinburgh.

Surviving
Gaelic
medical
MSS.

National Library of Scotland MS. II. This is a collection of fragments of several MSS. of various dates, containing 148 leaves, which apparently belonged to Malcolm M'Beath of Skye, and at a later time to Duncan M'Conacher. Various disorders such as leprosy, wounds, hydrophobia and epilepsy are treated, and the school of Salerno is several times mentioned.

National Library of Scotland MS. IV. This is a small vellum MS. with 99 leaves, measuring only $2\frac{1}{2} \times 1\frac{3}{4}$ in. It was also at one time the property of the M'Beath family, and dates in part from about 1450. It deals largely with medical definitions.

National Library of Scotland MS. IX. This is a single leaf containing a prescription for strangury, and a genealogy of the MacDougalls of Dunolly.

National Library of Scotland MS. X. This is a large parchment MS., $15 \times 10\frac{1}{2}$ in., written in double column with 50 lines or more to the page. It refers to many of the classic and Arabic writers on medicine, and appears to be largely based upon Bernard Gordon's "*Lilium Medicinæ*" before this book came into general circulation.

National Library of Scotland MS. XI. This consists of four parchment folios, $11 \times 8\frac{1}{2}$ in., written in double column in a small hand. It deals largely with the Aphorisms of Hippocrates and commentaries upon them.

National Library of Scotland MS. XII. This consists of 21 parchment leaves of large quarto size, and is mainly concerned with anatomy and diet.

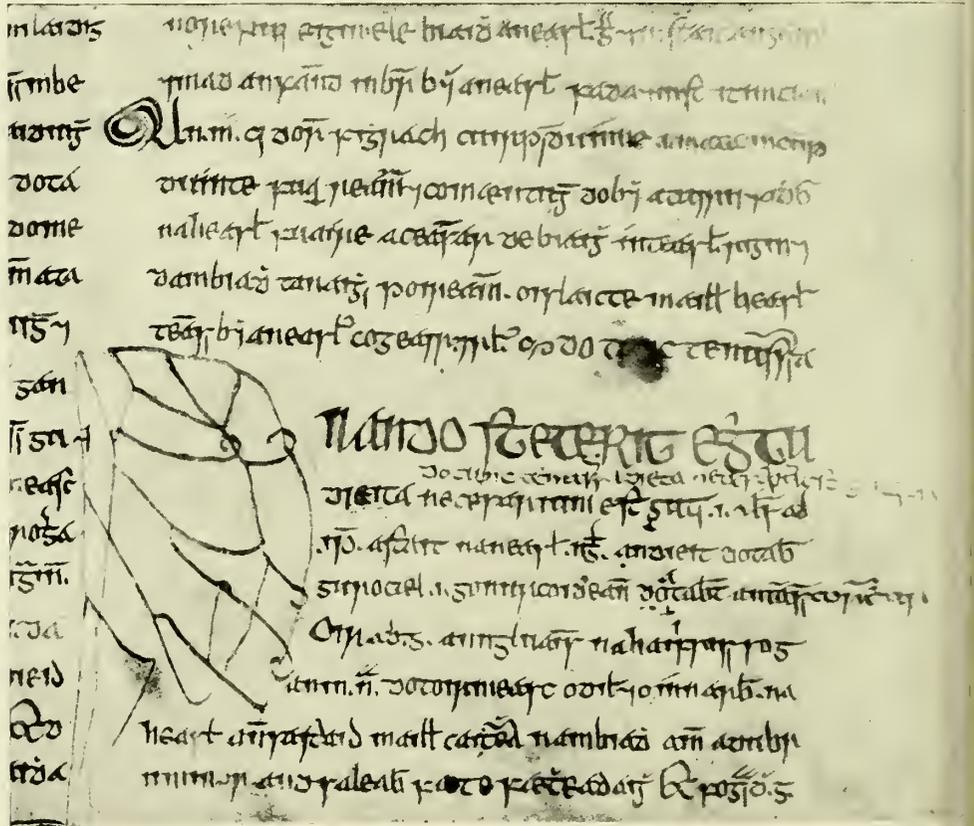
¹ For accounts of this treatise on *materia medica*, see paper by Sir Norman Moore in *Bartholomew Hospital Reports*, Vol. XI., also extracts by Dr. H. C. Gillies, *Caledonian Medical Journal*, Vol. VIII., pp. 102, 143.

² See Mackinnon: "A Descriptive Catalogue of Gaelic Manuscripts in the Advocates' Library, Edinburgh, and elsewhere in Scotland," Edinburgh, 1912.

National Library of Scotland MS. XIII. This contains portions of six different MSS. of various sizes. It refers to numerous classical and Arabic medical writers, and is partly medical and partly metaphysical.

National Library of Scotland MS. XIV. This consists of 16 leaves of large quarto size and deals mainly with the Aphorisms of Hippocrates.

National Library of Scotland MS. XVII. This consists of three leaves of parchment, large folio size, and is a commentary on the medical maxims of Isodore.



GAELIC MEDICAL MANUSCRIPT
It shows the frame-work of an initial letter intended to be illuminated
(National Library of Scotland MS. X.)

National Library of Scotland MS. XVIII. This consists of 16 leaves of paper in double column. It is part of a copy of Bernard Gordon's "Lilium Medicinæ."

National Library of Scotland MS. XX. This is a fragment consisting of six parchment leaves of large folio size, written in double column, and is of late date,

probably towards the end of the 17th century. It gives detailed recipes for various diseases and quotes many recognised ancient authorities.

National Library of Scotland MS. XXI. This consists of eight leaves of parchment, folio size, in double column, and deals with part of the Aphorisms of Hippocrates, citing various ancient authorities in the commentaries.

National Library of Scotland MS. XXII. This consists of eight leaves of parchment, folio size, and continues the treatise on the maxims of Isodore commenced in MS. XVII.

National Library of Scotland MS. XXIII. This consists of six leaves of parchment, small folio size, written in double column, and further continues the maxims of Isodore.

National Library of Scotland MS. XXV. This consists of four parchment leaves, small quarto size, and deals largely with matters of diet.

National Library of Scotland MS. XXVI. This consists of six leaves of parchment, quarto size, written in double column, and deals with such subjects as carbuncles, boils, elephantiasis, morphea, etc., also with the foods suitable for each month of the year, and with sleep.

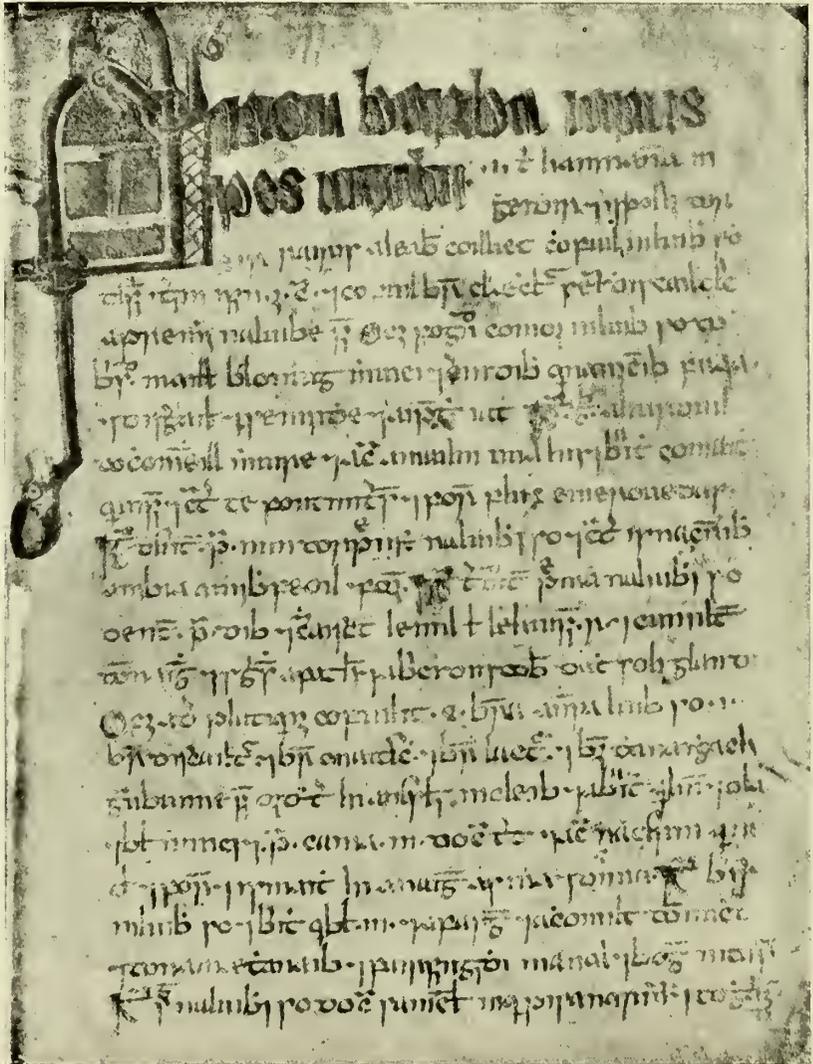
National Library of Scotland MS. XXVII. This consists of five leaves of parchment, small folio size. Paragraphs of Arnold, Egidius, Ebe Mesue and other writers are quoted.

National Library of Scotland MS. XXXIII. This contains a parchment MS. of eight leaves, small folio size, and another of paper, quarto size. The first belonged to John MacBeath, in 1700, and deals largely with diet. The second part contains an anatomical tract based on Galen's Anatomy, a copy of the "Schola Salernitana," and an elaborate treatise on urine.

National Library of Scotland MS. XLI. This consists of 14 small parchment leaves, containing Latin maxims on diet from Hippocrates, with commentaries in Gaelic.

National Library of Scotland MS. LX. This is a large manuscript of paper, quarto size, containing 476 pages. It was written by Angus O'Conacher between 1611 and 1641. This was one of a family living at Kilmore, who grew medicinal herbs in a garden near their house. The MS. contains numerous personal memoranda, and includes various contents written apparently with the idea of compressing a small medical cyclopædia into one volume. Anatomy, fevers, diseases of the eye, etc., are treated. Pages 126 to 154 contain a complete copy of the celebrated Latin poem known as the "Schola Salernitana." This is succeeded by a treatise on the urine, followed by a short treatise on wounds made by bullets, taken apparently from John of Vigo, an early writer on this subject. A short treatise on diets and another on drugs are also included, as well as a copy of the treatise on materia medica, which is described in MS. III. Some 40 authorities are cited throughout the MS., such as Galen, Avicenna, Hippocrates, Aristotle, Rhazes, etc.

National Library of Scotland Skene MS. A medical MS., which is apparently a continuation of MS. XVIII. (*vide supra*); it is a copy of a Gaelic version of part of Bernard Gordon's "Lilium Medicinæ." It apparently dates from the year 1511.



GAELIC MEDICAL MANUSCRIPT OF JOHN BEATON
15th century, showing first page. (*See also Frontispiece*)
(National Library of Scotland MS. III.)

Treatise on
materia
medica

National Library of Scotland MS. III. (*which is illustrated in the Frontispiece*) is attributed by Professor Mackinnon to the 15th century—part of it to the early years in that century. It belonged to John Beaton of the famous family of physicians. This forms, up to folio 80a, a copy of a treatise on materia medica,

including articles of animal, vegetable and mineral sources, which the physicians of the Middle Ages used for medicinal purposes. It is one of five Gaelic copies of this treatise, of which two copies are found in the British Museum, and a third is MS. LX. of the National Library, Edinburgh, the last copy having been written by Angus O'Conacher about the year 1611.

The list of articles is arranged alphabetically under their Latin names, the Latin names being written in capitals and coloured red, while the initial letter is elaborately drawn. The descriptions of the various substances are written on a uniform plan; the name is given first in Latin and then in Gaelic; then follow the "quality" and "degree," and the medicinal properties of the substance, either by itself or in composition with other drugs. Frequently anecdotes and folk beliefs are mentioned; for example, in reference to conium, it is mentioned that this is the herb that killed Socrates. Numerous authorities are quoted, especially Platearius of Salerno, and also Avicenna, Constantinus, Ebe Mesue, Isaac, Rhazes, Galen, Hippocrates, Macer, Gilbertus, Dioscorides, Averroes and Alexander.

The following two examples give an idea of its contents:—

Iris, i.e., glouriam. It has three names: *ireos*, *glaidinus* and *iris*. The flower of *iris* is purple, while that of *ireos* is white, and of *glaidinus* saffron colour. This plant is hot and dry in the second degree. If its root is gathered in the end of spring it preserves its virtue for two years. It has a laxative diuretic virtue, and removes the obstructions of the spleen, the kidneys and the bladder. It is a powerful remedy against troubles of the spiritual organs, and stomach ailments that proceed from flatulence. Its powder put on sores checks proud flesh and cleans them, etc.



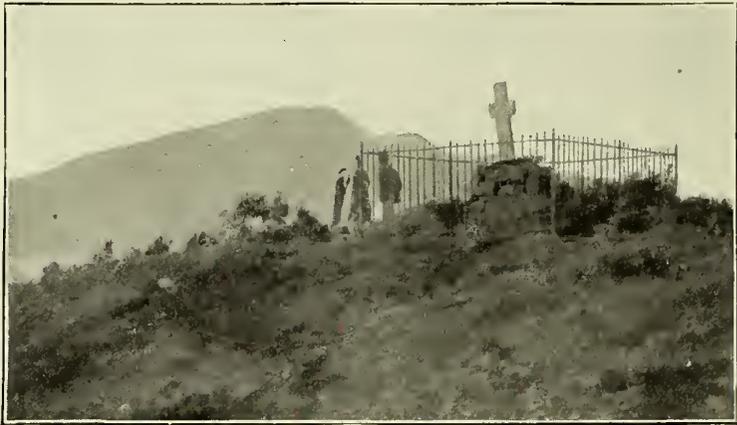
GAELIC MEDICAL MANUSCRIPT OF THE 15TH CENTURY
(Preserved in the University of Edinburgh Library)

Margarita, i.e., a pearl. This stone is cold, dry, and is found in a shell. And it grows in this way: When the shell opens it takes in its fill of poisonous dew, closes around it, and turns it into stone. The pearl that has a natural hollow in it is best, if also white. It is comforting in heart affections, and is put in electuaries. And if you wish to make the pearl white, give it to a pet pigeon to eat, and let it be left in its crop (stomach) for three or four hours. Then cut up the bird and remove the stone, and it will be pure, clear, brilliant thereafter.

John
Macbeth's
vade-mecum

Of the medical MSS. in other libraries, the most important is the Beaton Medical MS. in Edinburgh University Library.

Laing Coll. MS. No. 21. The medical MS. preserved in the library of the University of Edinburgh is a vellum MS. of 111 leaves of small quarto size, $6 \times 4\frac{1}{2}$ in. It is bound in boards covered with skin and fastened by two silver clasps which are now broken. An entry on folio 54*b* states that this portion of the MS. was written by Cairpre O'Cendamhain for John M'Beath, and another entry on folio 85*a*, dated 1657, was written by Donald M'Beath. Another entry, dated 1587, states



BEATON MEMORIAL CROSS OF 1582, AT PENNYCROSS, MULL

that "this is the book of Malcolm, son of Gillanders, son of Donald M'Beath," but the original text is much older, and, as it belonged to the grandfather of the possessor in 1587, this puts its original production back into the 15th century. In still another place, folio 103*a*, it is said to be the book of Fergus Veagh, living at Penny Cross in Mull. Here the site of the doctor's house is still pointed out, and a cross with the date 1582, and the inscription "G.M.B., D.M.B.," the initials of two of the Macbeth family.

The MS. begins with a calendar and astrological table covering nine folios. Folios 10-85 are medical, beginning with fevers, and the appearances of the urine in relation to diagnosis are treated in great detail. The style of the book is that frequently followed in mediæval treatises: paragraphs begin with a striking Latin sentence followed by a commentary in Gaelic. Bernard Gordon's "Lilium Medicinæ" seems to have formed the basis for the work. It evidently was a kind of vade-mecum

which John Macbeth carried about with him, and to which additions were made by him and his successors as further experience and knowledge rendered desirable. After folio 85 there are various notes containing signs of life and death, astrological matters and pedigrees of the Macbeth family.

Six families of Macbeth are traced back to a common ancestor, Fergus the Fair, and he in turn is traced back to an individual, Beatha, who lived in the neighbourhood of Dublin, and who was descended from Neill of the Nine Hostages, monarch of Ireland. Beatha, in highland tradition, emigrated from Ireland when Lady O'Kane married Angus Og of Islay, the friend and supporter of Robert Bruce.

The "Lilium
Medicinæ"

In the library of the Society of Antiquaries of Scotland is an MS. in Gaelic of the "Lilium Medicinæ" by Bernard Gordon. This is a thick paper folio of 714 pages, bound in calf. It was sent to the Society by the Rev. Donald Macqueen, of Kilmuir, Skye, in 1784. This copy of the "Lilium Medicinæ" is almost complete and dates from the early 17th century, about 1630. The price paid for transcription is said to have been 60 milk cows, and this was by no means an extravagant fee for what is a well written MS. It belonged originally to Farchar Beaton of Husibost in Skye, and was by him so greatly valued that when he had, in the course of professional visitations, to cross an arm of the sea by boat, he was accustomed to send his book in the hands of a servant round by land for greater security.

The late Professor Mackinnon possessed two Gaelic medical MSS. of which one was an imperfect copy of the treatise on materia medica already described (*vide supra*), consisting of 13 leaves, dating from the late 15th century. The other was a fragment consisting of three parchment leaves containing a summary of the treatise of Magister Ricairdi, dating from the late 16th century.

Other
medical
MSS.

The British Museum contains at least two Gaelic medical MSS. Of these, one (Additional MS. 15582), consisting of 62 vellum folios in good preservation, contains a commentary on the Regimen Sanitatis of Salerno. It seems to have belonged originally to John Macbeth, and to have been a valued heirloom in this family. It was written for him by David Kearny in the year 1563.¹

The second MS. is another book of the Macbeth family (Additional MS. 15403), also on vellum, which is a copy of the treatise on materia medica to which reference is made elsewhere.

¹ Mackinnon: "A Descriptive Catalogue of Gaelic Manuscripts in the Advocates' Library, Edinburgh, and elsewhere in Scotland," p. 14. This was published in facsimile by H. C. Gillies, Glasgow, 1911.

CHAPTER VI

MEDIÆVAL SCOTTISH HOSPITALS

THE small hospitals established in Scotland from the Scoto-Saxon period up to the time of the Reformation were very great in number. Many of these were founded by pious persons, lasted for a few generations, and passed into desuetude or decay. Others, especially those connected with the larger religious houses, enjoyed a more permanent existence. The hospital was usually a small institution, drawing its revenue from lands which were often situated in distant counties, and it must have been difficult, after the interest of the original founder had ceased, to collect these revenues and to prevent their misappropriation.

Nature
of early
hospitals

Various place names in Scotland preserve the memory of a previous hospital where the structure and all its associations have totally disappeared. The name Spital is not uncommon, and such combinations as Spitalfield, Spitalhaugh and Spitalhill are frequently found. It must not be assumed, however, that such a name invariably designates the site of a previous hospital, as the place indicated by such a name may have been the locality from which the hospital revenues were drawn, or which had some similar connection with a distant institution.

The early Scottish hospitals were of various types. Of these the commonest was the hospital or infirmary maintained by every abbey, priory and other large institution for the treatment of its dependents and guests. Several well-known hospitals, like that of Soutra, were placed on dangerous or desolate roads, and these, with their religious attendants, afforded the same assistance to travellers and pilgrims as are afforded by the hospices found, for example, among the Alps in recent times. In various parts of the country where religious houses existed, and where there was accordingly a possibility of obtaining medical supervision, hospitals were established by nobles of the state or church. Nomination to the benefits of these hospitals naturally remained in the families of the founders, for the succour of retainers who had become wounded or worn out in their service.

Collegiate churches, of which between 30 and 40 existed in mediæval Scotland, had usually a number of bedesmen who served the double purpose of saying prayers for the soul of the founder, and of acting as recipients of his charity.¹ These bedesmen were, in general, persons rendered unfit for active life by illness, who were maintained in easy circumstances in a hospital attached to the church. Most of these collegiate churches were situated in the towns.

Special hospitals also existed as, for example, those which had been established for the segregation of lepers.

¹ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 465.

Their decay
and loss of
funds

Long before the time of the Reformation there were great complaints in regard to the malversation of funds which had been left for the endowment of hospitals. As already mentioned, the 13th century was a period of great prosperity in southern Scotland; education flourished, many religious houses were established, and pious and beneficent donors endowed hospitals for the relief of the sick and poor. During the weak and troubled reigns of Robert II. and Robert III., the king was unable to control the great territorial families.

Unlike the case of England, in Scotland the influence of the burgesses in the towns, with the one exception of Edinburgh, was practically negligible, and through the 14th and 15th centuries there was a constant and often unsuccessful struggle on the part of the king, supported by the church, against the nobles for the preservation of his authority and even of his life. During two centuries, nobles, little restrained by public opinion, which was almost inarticulate, often defied and robbed the church. A striking example of this occurred when Elgin Cathedral in 1390, with its hospital and canons' manses, was burned by the Wolf of Badenoch, who had been excommunicated by its bishop.

One of the most vulnerable sides of the church's activities consisted in the hospitals, which had been established all over the country for the relief of the poor and sick; and the funds of these were constantly appropriated by the territorial magnates within whose jurisdiction they had been established.

Attempts at
restoration

When James I., after his long minority and captivity in England, returned to Scotland in 1424, there were great complaints as to the manner in which the church, and especially its hospitals, had been robbed. In his first Parliament, held at Perth on 12th March, 1424, the first item of business concerned the restoration of lands which had been taken from the Holy Kirk. The second item of business was that all hospitals of royal foundation for the poor and sick were to be visited by the Chancellor, as had been done in the time of the king's progenitors, while those founded by the nobility and other persons were to be visited by the bishops and ordinaries of the See, and these visitors were to reform the hospitals according to their first foundation.¹ James I. paid for his attempts at reorganisation with his life in 1437.

After his son James II. had passed through his minority and taken over the reins of government, one of his early measures was a similar enactment in regard to reformation of hospitals. At a parliament held in Edinburgh on 6th March, 1457, it was enacted that the foundations of the hospitals were to be sought out and re-established, and where the foundation could not be discovered, it was directed that the matter should be referred to the king. Definite persons were specified who were to carry out this important matter in the different parts of the country.²

Before this could be done effectively the king was killed at the siege of Roxburgh in 1460. His widow, Mary of Gueldres, showed her interest in hospitals

¹ "Acts of the Scottish Parliament," 1424, Vol. II., p. 7.

² Op. cit., 1457, Vol. II., p. 49.

by the foundation of the Trinity Hospital at Edinburgh, and on 9th October, 1466, a parliament of her son James III., held at Edinburgh, made a further attempt to remedy the abuse of hospitals. The Chancellor or his deputy was instructed to reduce hospitals to their original foundation. Where this could not be found, the fruits of the hospital were to be assigned in the district where the hospital had formerly existed for the benefit of poor and miserable persons on the recommendation of "two good men of conscience."¹

The measure was not carried out with sufficient thoroughness to merit popular approval, and three years later a more peremptory Act was passed by the three estates. The King's Highness and the ordinaries were now instructed to carry the Act of 1466 into execution, and Maister Richard Guthrie, the principal confessor of the king, was nominated to have authority for the reformation of the hospitals.²

Once again before the Reformation, at a parliament of James V., held on 14th March, 1540, it was resolved that the former Acts anent hospitals should be re-enacted and that the King should name visitors to enforce the observance of the original foundations.³

The church also bestirred itself before the Reformation for the betterment of the hospitals still remaining under its administration. They were, in some places, falling into disuse, and in other places their funds were being misappropriated, so that the support of their inmates became impossible. This had become very noticeable by the year 1548, and at a Provincial Council, holden by the Prelates and Clergy of the realm of Scotland, at Edinburgh, in 1549, a resolution was passed anent the condition and repair of hospitals. Every ordinary was enjoined to make diligent inquiry throughout his diocese regarding the foundations of hospitals. If the charters and instruments could be found, he was to consider to what extent these places were dilapidated, who were their present possessors, and how the funds had been misappropriated. Masters of works of every monastery were enjoined to visit every year places attached to monasteries and churches for the repair of dilapidations.

Little attention appears to have been paid to this, and at another Provincial Council, held at Edinburgh, in January, 1552, the above visitation was ordered to be put into effect before the next Michaelmas, and a report made to the Commissaries General so that suitable remedies could be provided.⁴

These orders, however, came too late, for the Reformation was at hand, and along with the possessions of other religious houses, the revenues of most of the hospitals were re-appropriated, usually for educational purposes, or simply for the benefit of neighbouring proprietors.

It has already been mentioned that the early hospitals were connected with religious foundations, and that those who carried out the treatment of the

Nature of ailments treated

¹ "Acts of the Scottish Parliament," 1466, Vol. II., p. 86.

² *Op. cit.*, 1469, Vol. II., p. 97.

³ *Op. cit.*, 1540, Vol. II., p. 371.

⁴ "Statutes of the Scottish Church, 1225-1559," Patrick, *Pub. of Scottish Hist. Soc.*, pp. 119 and 139.

sick in them were at first clerics. It should be remembered that the nature of a mediæval hospital and the diseases treated there were necessarily somewhat different from those found in hospitals as they exist at the present day.

In the first place, hospitals were not generally intended for the treatment of acute disease. For one thing, transport was difficult, and a patient suffering from such a disease as acute pneumonia could not be transported to hospital unless it happened that he took ill at the very gate of a monastery.

In the second place, the early stages of chronic disease were not recognised. Thus, there was no means of diagnosing valvular disease of the heart, as such, before the end of the 18th century, and persons suffering from this condition would not be regarded as subjects for treatment until their condition was so advanced that the case might be classed as one of "dropsy." Similarly, diseases of the kidneys could hardly be recognised with exactness before Bright's treatise of 1827. If it be true that syphilis did not occur, in a severe form at least, before 1494, many diseases such as locomotor ataxia, general paralysis and several other nervous conditions, must have been non-existent in the Middle Ages. Speaking generally, therefore, only persons who had been so disabled as to be quite unfit for work and active life formed the class from which hospital patients were drawn in mediæval times.

Another reason of difference was that the clerical physician or surgeon, furnished with medical manuscripts often some centuries older than his time, had to rely for the alleviation of illness or bad health more upon simple remedies and hospitality than upon actual intervention.

Virchow has shown that after the edict of Pope Innocent III., early in the 13th century, directing the foundation of hospitals in all Sees, some 150 hospitals of the Holy Spirit were founded in Germany alone.¹ To this period belongs the founding or re-organisation of several great hospitals in London, and, at this time, numerous hospitals appear to have been founded in Scotland also.

At the time of the Reformation, the following hospitals were in existence in Scotland, having survived from a much earlier period:—

Berwickshire

At Berwick a Maison Dieu, or Domus Dei, existed from a very early period, as well as a hospital of the Virgin Mary, of which both are mentioned in writs of Edward III. of England.² Immediately outside the town, between the walls and the sea, stood a hospital dedicated to St. Mary Magdalen, prior to the time of Edward I.; this hospital still gives the name of Maudlinfield to the locality.

At Hutton, in the south-east of the county, there had been founded during the Scoto-Saxon period, a hospital dedicated to the apostle John. The guardian

¹ Virchow: "Gesammelte Abhandlungen aus dem Gebiete der Oeffentlichen Medizin," Berlin, 1879, Vol. 11., p. 24.

² Chalmers: "Caledonia," London, 1810, Vol. 11., pp. 347-349.

of this hospital took the oath of fealty to Edward I. in 1296. At Trefountain, near St. Bathans, a hospital was founded under David I.

A very old hospital, dedicated to St. Leonard, dating from the Scoto-Saxon period, was founded by Hugh de Morville about 1170. This hospital stood on the west bank of the Leader, some distance below Lauder, and its guardian swore fealty to Edward I. in 1296. At a later date, in 1541, the tiends of this hospital were made over to Andrew Hume, whose wife's name was Margaret. Gemmell discovered on the walls of an old farmhouse, south of the town of Lauder, two inscribed stones of which one bears the letters $\frac{M}{A.H.}$ while the other has the inscription "Deus est fons vitæ: thirst for the Vater of lif." He thinks that this building may have been the early hospital.

At Legerwood, in Lauderdale, there was also an early hospital, dating from the time of Malcolm IV., whose guardian, in 1296, likewise swore fealty to Edward I.

A hospital dedicated to St. Leonard at Horndene, close to Norham, was founded by Robert Byset in the 12th century. It apparently accommodated two persons, and was under the charge of the monks of Kelso in the 13th century. At Aldcambus a hospital for lepers was founded during the 12th century (*see page 195*).

Hospitals appear also to have existed, according to Gemmell, at Cockburnspath (probably a hospice on a dangerous piece of road), Duns and Earlston.

Roxburghshire

At Rutherford, on the south bank of the Tweed, there was an old hospital dedicated to St. Mary Magdalen, and this was granted by Robert III. to the Canons of Jedburgh. It was founded in 1396, and had in its charter the curious provision that if it should be destroyed by an English invasion, it was to be rebuilt in the same place.

The Knights of St. John of Jerusalem had various settlements in this county, and among others, a hospital at Nisbet was managed by a community of the knights living at Anerum.

In the vanished town of Old Roxburgh, at the confluence of the Teviot and the Tweed, a Maison Dieu, dedicated to St. Mary Magdalen, existed for the reception of pilgrims and diseased persons, and to this establishment the charity of David I. had granted land in Ravendene.

At Ednam was a hospital dedicated to St. Laurence, founded by the Edmonstons of Ednam; the chaplainry was confirmed by King James I., in 1426.¹

At Jedburgh a Maison Dieu was founded at an early date, and its master swore fealty to Edward I. in 1296. Small hospitals appear also to have existed at Smailholm, in the parish of Cavers,² and at Monteviot.

¹ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 475.

² Chalmers: "Caledonia," London, 1810, Vol. II., p. 163.

A hospital or hospice for wayfaring poor and pilgrims travelling to Melrose Abbey was erected by Jocelyn, Bishop of Glasgow, at Hassendean in the end of the 12th century, and was afterwards called the Monks' Tower.¹

Peeblesshire

About two miles east of Peebles, at a place more recently known as Chapel-yards, there was an ancient hospital dedicated to St. Leonard, which received a charter from King James I. in 1427. Near West Linton there seems to have been formerly a hospital at Spitalhaugh on Lyne Water.²

Dumfriesshire

The largest hospital in the county of Dumfries appears to have been at Sanquhar. It is uncertain to whom it owes its foundation, but it was apparently a new erection in 1296, when Bartholomew Eglistan, the chaplain, swore fealty to Edward I. It stood on the north bank of the Nith near the old castle, and from its large building many of the neighbouring houses were erected.

At the Abbey of Holywood, Edward Bruce, in the reign of his brother Robert I., founded a hospital and chapel which he endowed with lands in Galloway. The establishment, having been destroyed during the Wars of Independence, was restored in 1372 by Archibald the Grim, Earl of Douglas, who again endowed it with lands in Galloway by sanction of Robert II.

At Trailtrow in Annandale, a hospital existed in early times, and at the Reformation passed with its lands into the possession of Lord Herries.

At Kirkstyle, in the parish of Ruthwell, the Knights of the Order of St. John of Jerusalem had a preceptory and hospital, of which the master, having submitted to Edward I., in 1296, was rewarded by a precept to the Sheriff of Dumfries to restore his property.³

Kirkcudbrightshire

The only hospital in this county in early times, apart from those of the religious houses, appears to have stood at Spital in Kirkmabreck parish.⁴

Wigtownshire

In the north-west corner of Stoneykirk parish there existed in early times a hospital, of which the memory is still perpetuated by the name of Spital. It was probably a hospice for pilgrims on the way to Whithorn, which for many centuries was a celebrated place of pilgrimage.⁵

Haddingtonshire

There were some half-dozen ancient hospitals in this county, which were of great usefulness in the Middle Ages.

¹ Mackinlay: "The Pre-Reformation Church," Edinburgh, 1904, p. 369; also Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 235.

² Chalmers: "Caledonia," London, 1810, Vol. II., p. 943.

³ Chalmers: Op. cit., Vol. III., p. 154.

⁴ Chalmers: Op. cit., Vol. III., p. 310.

⁵ Chalmers: Op. cit., Vol. III., p. 423.

At Ballincreeff, in Aberlady parish, a hospital was founded as early as the 12th century and dedicated to St. Cuthbert.

Near Seton, a hospital dedicated to St. Germain was founded in the 12th century. It was presumably associated with the neighbouring collegiate church of Seton, and, in 1296, when Bartholomew, a master of the old hospital, took the oath of fealty to Edward I., he received the restoration of the revenues of the hospital which were situated in various counties. The property of this hospital passed later to the support of King's College, Aberdeen.

At the town of Haddington there was an old hospital dedicated to the Virgin Mary, which existed in the time of Edward II., and in its neighbourhood was a hospital dedicated to St. Laurence. There were also hospitals at Gosford and at Houseton; the master of the Trinity Hospital in the latter place swore fealty to Edward I. in 1296.¹

Edinburghshire

One of the oldest hospitals in this county was that of Soltray or Soutra, in Midlothian, 16 miles south of Edinburgh, on the road leading to Kelso and England. This hospital more nearly fulfilled the conditions of a modern hospital than many others, because, being situated on an important route, it gave aid to travellers, pilgrims and persons of the district who were urgently in need of medical assistance.

Soutra
Hospital



SOUTRA AISLE

A present-day remnant of Soutra Hospital

The hospital had been founded by Malcolm IV., in 1164, for the relief of pilgrims and poor and sickly people. In the neighbourhood was a well dedicated to the Holy Trinity, which was much frequented by sick and diseased persons because of its reputed curative properties.

¹ Chalmers: "Caledonia," London, 1810, Vol. II., p. 510.

The hospital was apparently regarded as one of great importance. It received not only grants from King William and King Alexander II.; but, from various bishops, barons and inferior persons, it received churches, tithes, lands, tofts, annuities, corn, meal and various other property, so that it must have been well able to discharge its functions. Two of its masters in the 13th century took the oath of allegiance to Edward I., and one of its latest masters, Thomas Lauder, was tutor to James II., and was made Bishop of Dunkeld in 1453.¹ The hospital is mentioned several times during the 13th century, but, apparently having become less necessary at a later date, the parish and church of Soutra were annexed to Trinity Church, in Edinburgh, where a hospital was founded by Mary of Gueldres, following on a Bull of Pope Pius II., in 1460. Remnants of Soutra Hospital in a district which is now moorland, are still visible, and form a striking feature of the landscape, visible for many miles in various directions. On some lands belonging to this hospital at St. Leonards, near Edinburgh, Robert Ballantine, Abbot of Holyrood, founded a hospital for seven distressed people.

Trinity
Hospital

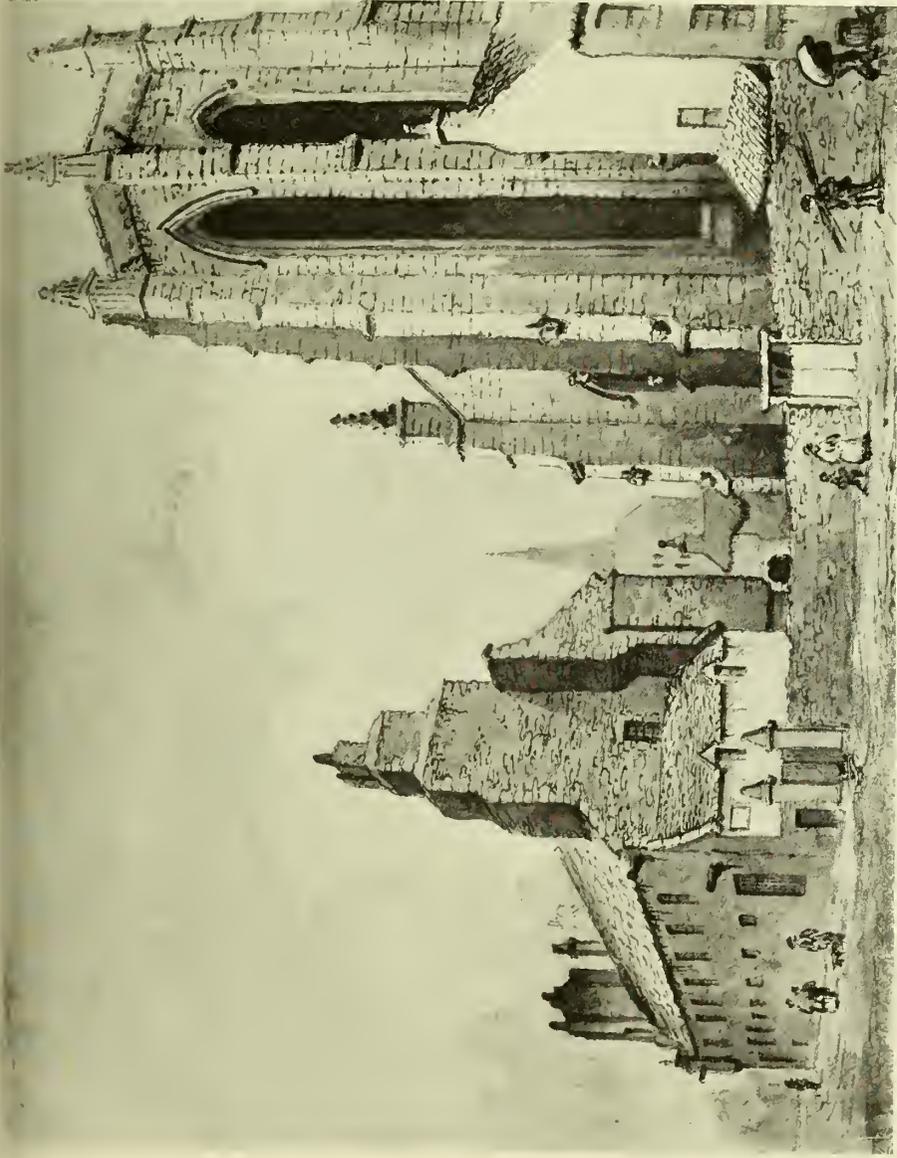
A very important Edinburgh hospital was the Trinity Hospital, founded at the instigation of Queen Mary of Gueldres, in memory of her husband, James II. The funds of several religious houses, including those of the Hospital of Soutra, were appropriated for the purpose of founding Trinity Hospital and its collegiate church,² and numerous references to it occur in the Town Council minutes of the following century. On 21st June, 1578, a minute of the Town Council refers to the reorganisation in the hospital of Trinity College, where twelve furnished beds were now made ready for "pepill seiklie and vnabill to laubour for thair leving." These people were called "bedesmen," "bedrels," "betherells," or "beadles." They were given an allowance for food and clothing, and they had been obliged, prior to the Reformation, to carry out the duties, so far as they were able, of attendance on religious services twice daily, and of praying for the soul of the founder. In the minute of this date, nine persons were admitted. It is not specified what were their diseases, except in the case of Dauid Forester, who was a blind man. Of the nine, Jhonne Thomesoun retained his place only for about six weeks, being ejected on 2nd August, 1578, because he was proved to be "ane drunkard." On 9th August, Bessy Jhonnstoun, a widow, was added to the company, being a "pure impotent bedrell."

Many gifts to the hospital are recorded in the following years, and, in 1581 and 1584, the roof and windows were repaired.³ The hospital continued its beneficent work for the sick and impotent up to the 19th century, and although the buildings disappeared to make way for the railway in 1845, its revenues are still employed by the Town Council in giving valued grants to aged and sick persons of the city.

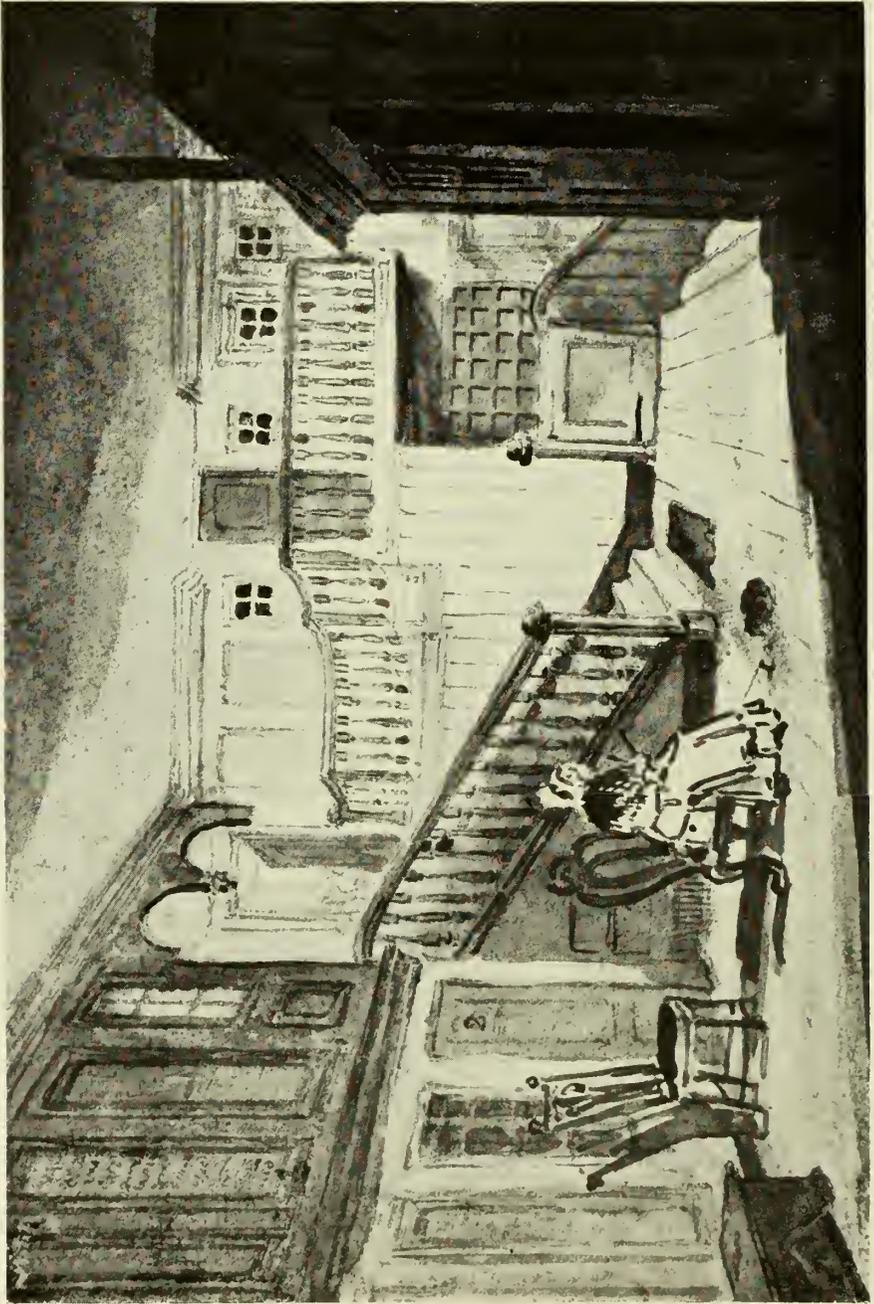
¹ Chalmers: "Caledonia," London, 1810, Vol. II., p. 509.

² "Charters Relating to the City of Edinburgh, 1143-1540," Scottish Burgh Records Society, Edinburgh, 1871, pp. 84-119.

³ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 77, 80, 81, 553, 208, 211 and 328.



TRINITY HOSPITAL (on left) AND CHURCH, BEFORE 1860
(From a water-colour sketch by Sir Daniel Wilson, in Edinburgh University Library)



INTERIOR OF TRINITY HOSPITAL, EDINBURGH
As it appeared early in the 19th century, showing the mediæval arrangements
(From a water-colour sketch by Sir Daniel Wilson, in *Edinburgh University Library*)

There was also in Edinburgh, at the time of the Reformation, a hospital in Bell's Wynd, known as the *Maison Dieu*. The building of this hospital persisted into the 19th century, and was latterly known as the "Clamshell turnpike,"¹ from a shell carved in the stone above the door of the stairway.

Another hospital, in St. Mary's Wynd, was that of the Virgin Mary, for which the Town Council, in 1575, authorised the taking of a collection in St. Giles Church. There is a reference to this hospital in 1500, and it was re-roofed in 1508, but the deed of foundation appears to have been lost in 1583, when the Town Council authorised Baillie Michael Chisholm to search for it.²

A hospital is also mentioned in connection with the Church of St. Mary de Campis, popularly known as the Kirk o' Field, which was one of the buildings burned by the English in 1544; so that in this year the religious community, not having means to rebuild it, sold the hospital to James, Earl of Arran, who built on it a lodging that afterwards was used as the College of Edinburgh. The University of Edinburgh now stands upon this site.

Another hospital in Edinburgh, of almost equal age with Trinity Hospital, was established by Thomas Spence, Bishop of Aberdeen, in the year 1479. It was situated on the opposite side of Leith Wynd from Trinity Hospital, was designed for the reception and maintenance of twelve men, and was known as the Hospital of Our Lady. Subsequently it received revenues from other benefactors, including a chapel dedicated to St. Paul. The Town Council of Edinburgh became proprietors of this charity under a grant by Queen Mary, and in a minute of 15th June, 1582, they refer to it as the "hospitall of Sanct Pawles Work, callit our Lady Hospitall," and lay down an elaborate set of rules for the master of the hospital and the bedesmen. The latter were to be "na papistes, bot of the trew religioun." They were to be "not defylit with blame of ony notable vyce, bot of guid fame and conversatioun," and persons who would have exercised themselves in some honest trade if "seiknes, aige or impotencie" had not prevented them.³

Hospital of
Our Lady

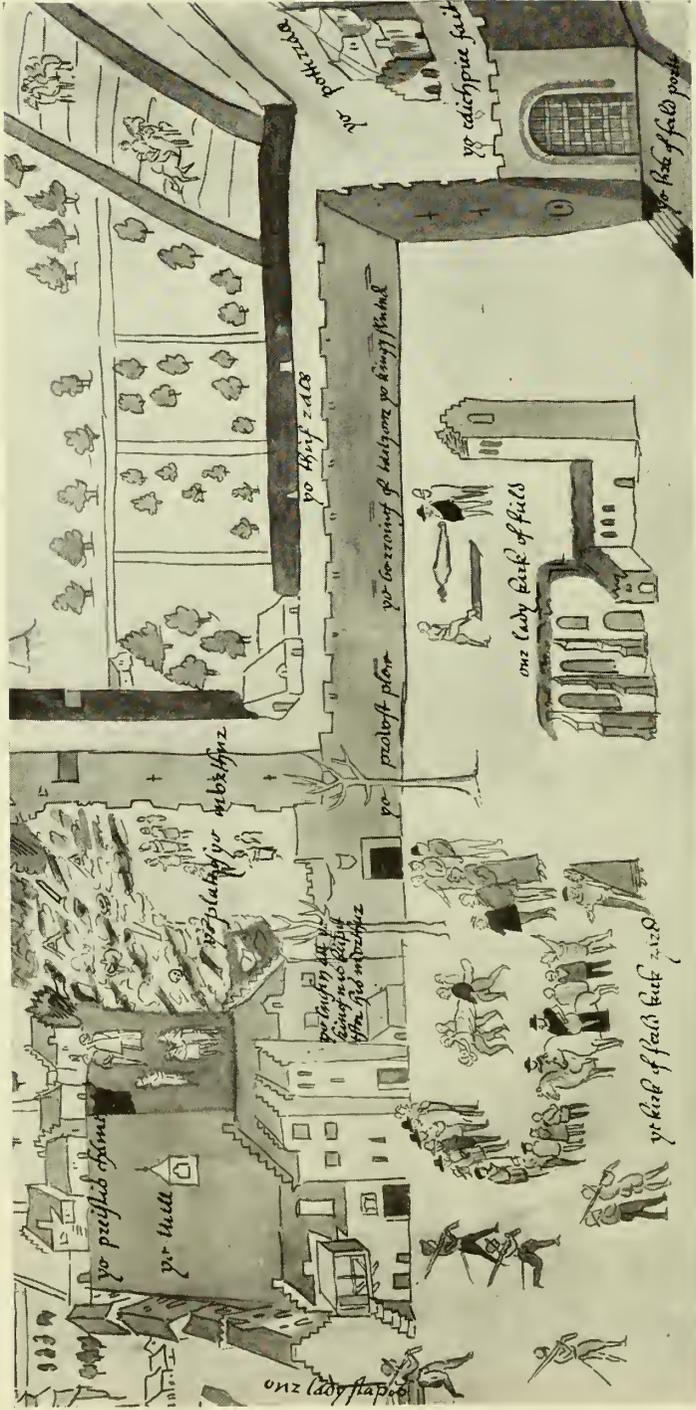
This hospital, however, appears to have passed into desuetude, and in 1619 the buildings, having become ruinous, were reconstructed under the name of Paul's Work, to receive boys and girls who should be taught a trade; and, finally, the Town Council converted it into a House of Correction. In 1650, this hospital was used for the soldiers of General Leslie's army wounded in the repulse of Oliver Cromwell, when he attacked Edinburgh.

A hospital existed in connection with the Convent of St. Catherine of Siena, inhabited by Dominican nuns, a short distance south of Edinburgh, in a district which has come to be called, by corruption, "Sciennes." The hospital, which

¹ Chalmers: "Caledonia," London, 1810, Vol. II., p. 770.

² "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 39 and 314; and "Extracts, 1403-1528," pp. 79 and 117.

³ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 564-567.



KIRK O' FIELD

Sketch made 10th February, 1567, for Queen Elizabeth, showing the surroundings of Darnley's murder. In the foreground is the ruined Church of St. Mary de Campis; behind are buildings, including the Hospital of St. Mary, used by the Duke of Châtelherault, and, fifteen years later, taken over for the Town's College

The city-wall crosses the picture, with an angle opposite the Potterrow.
 (Original in H.M. Record Office)

was presumably originally a place for the reception of the neighbouring sick, appears to have reverted after the Reformation to the possession of the Town Council. After some trouble with a neighbouring proprietor, Henry Kincaid,

who also claimed the buildings, the magistrates took possession in 1575 and used it as an isolation hospital for persons suffering from the plague, which had been prevalent in Edinburgh.¹

Still another Edinburgh hospital which, however, was founded shortly before the Reformation, was the Hospital of the Magdalen Chapel in the Cowgate, founded by Michael Makquhen and Janet Rynd, his wife, in 1537, for seven bedesmen. This hospital lasted for some 115 years. Its chapel still stands.

Hospital of
St. Mary
Magdalen



HOSPITAL OF ST. MARY MAGDALEN WITH ITS
CHAPEL
(From a sketch of 1816)

and there was, in the 17th century, a garden with summer-house to the south of the chapel and hospital.² The chapel and hospital were left under the patronage of the hammermen of Edinburgh.³

The manner in which a hospital gradually disappeared is well exemplified by the experience of St. Thomas's Hospital, at Edinburgh, which had been founded in 1541, in the reign of James V., by George Creighton, Bishop of Dunkeld. The building was in the Burgh of Canongate, close to the Water-gate, and the patronage of the hospital was vested by the founder in himself and his heirs. It was natural that the heirs should not be interested in hospital work, and, in 1617, an arrangement was reached between David Creighton, the patron at the time, and the bedesmen of the hospital, that Creighton should retain the endowments while the bedesmen and chaplains were allowed to sell the hospital buildings to the magistrates of the Canongate. The magistrates established here a hospital for the poor of the burgh, and, in 1634, sold the patronage of the hospital to the Kirk Session for the same purpose. In the words of Arnot: "Its revenues were, by degrees, entirely embezzled." In 1747, the building was converted into coach-houses, and, becoming ruinous, was pulled down in the year 1778.⁴

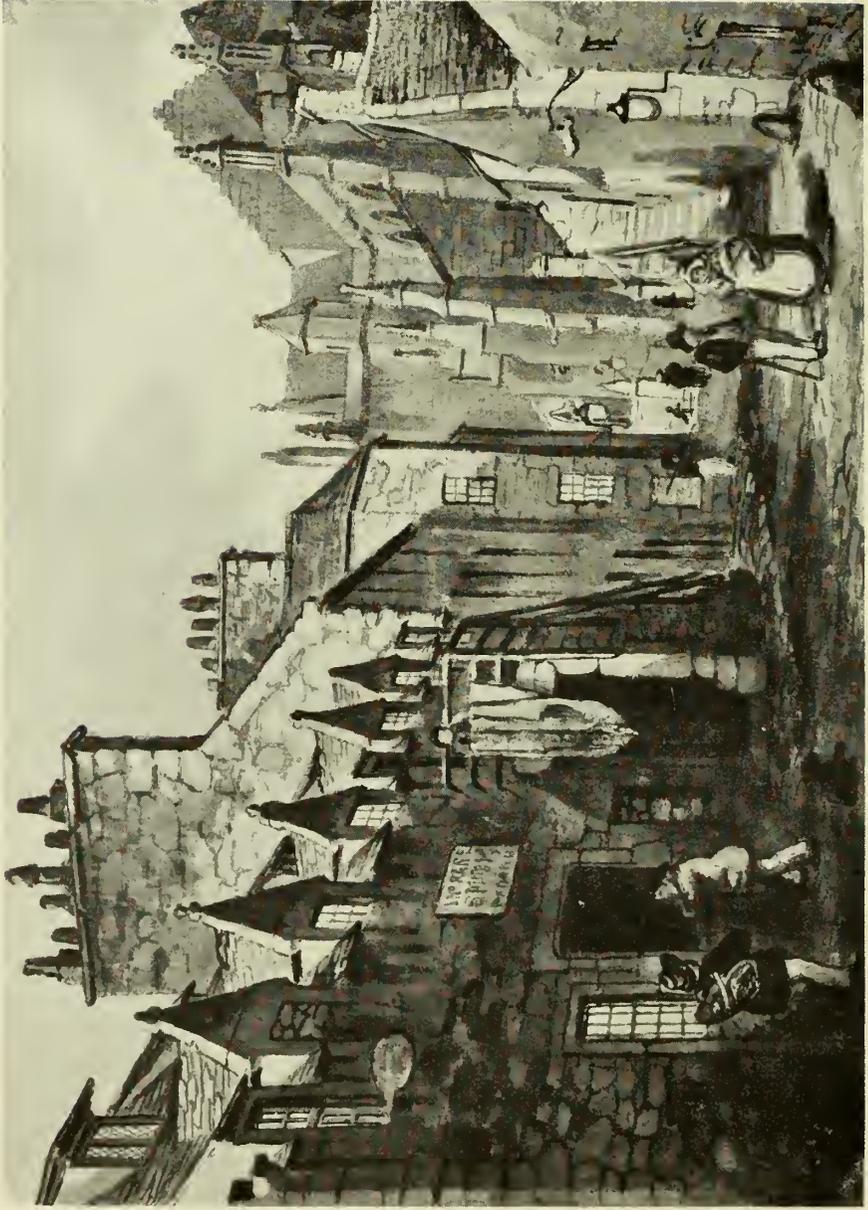
Hospital of
St. Thomas

¹ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 30, 37 and 38.

² "Old Edinburgh Club Publications," 1916, Vol. VIII., pp. 26 and 27.

³ Chalmers: "Caledonia," London, 1810, Vol. II., p. 770.

⁴ Arnot: "History of Edinburgh," 1779, p. 249.



HOSPITAL OF OUR LADY, EDINBURGH

The Hospital is on the left, with Trinity College Church in the background

(From a water-colour sketch by Sir Daniel Wilson, in *Edinburgh University Library*)

A hospital, with chapel dedicated to St. Nicholas, was situated in North Leith, and a hospital for six persons was established in connection with the church of Dalkeith, by Sir James Douglas, in 1396.¹

There are records of a hospital having existed in early times at Balantrodach, or Temple, in Midlothian, which originally was a settlement of the Knights Templars, whose property, after the dissolution of that Order in 1312, passed into the keeping of the Knights of the Hospital of St. John of Jerusalem.² The ancient chapel of this religious settlement still stands in a ruined state.³

Linlithgowshire

An important example of the care which religious institutions exercised over the physical well-being of the community is still to be seen in the Priory of Torphichen, established by the Knights of the Order of St. John of Jerusalem, with the consent of David I., in the year 1124.⁴ A hospitium had been established at Jerusalem, as a pious foundation, by the merchants of Amalfi some time before 1048, for the purpose of giving shelter to pilgrims arriving at the Holy City.

Knights of
St. John of
Jerusalem

With the appearance of the Crusaders at Jerusalem in 1099, the character of the fraternity of serving brothers, spending their lives in devoted attention to the sick and destitute among the pilgrims, changed. They now took the very important step of undertaking, in addition to their charitable work, the protection of pilgrims both in Palestine and in their journeys to and from it. This introduced a military element into their duties, and in 1099, under the mastership of Raymond de Puy, their title was changed to that of the Knights Hospitallers of the Order of St. John of Jerusalem, whose uniform consisted of a red surcoat with a plain white cross. The cross sometimes takes the form of a Maltese cross and sometimes, as at Torphichen, has a double crosspiece. The Order was made up of three classes—knights of noble birth, who carried arms; priests or chaplains, who performed religious ceremonies; and serving brothers, who attended the sick and relieved the pilgrims.

The Order gradually came to hold much property in different countries, and it was divided into national corps, known as provinces or langues. Over every langue, such as that of England, presided a Grand Prior, under whom were placed Preceptors or Commanders, governing the different houses or commanderies in the province. A Preceptory, or Priory, served as a home for aged knights and as a recruiting station for aspirants to the Order. It is presumable that the Priory at Torphichen was an offshoot of the English langue, which had been established in 1100 and later developed into a wealthy monastery at Clerkenwell, in London, of which the gate still remains.

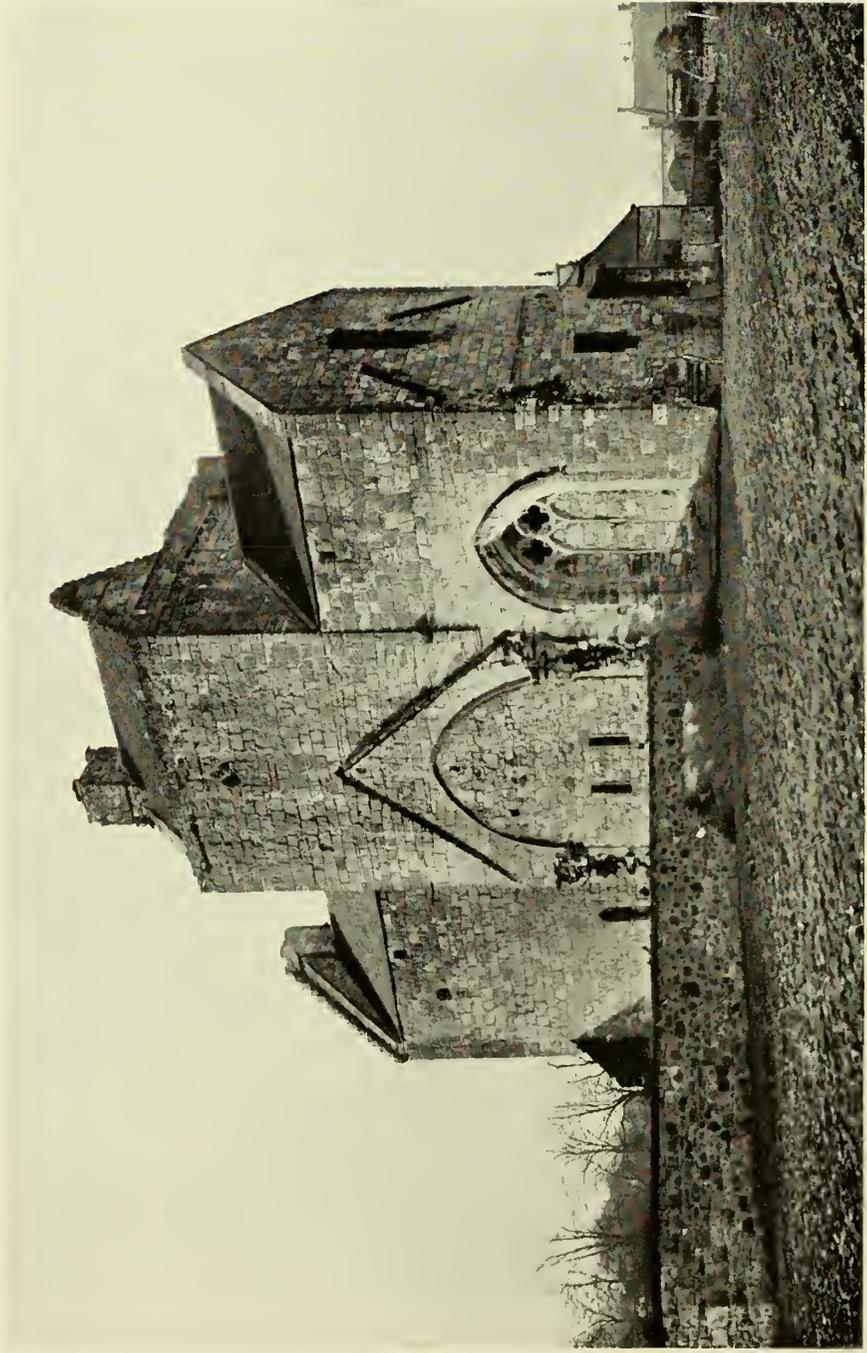
In a dispute between the Scottish Hospitallers and the Abbot and Canons of Holyrood, between 1210 and 1214, the settlement was sealed by the Chapter of the

¹ Chalmers: "Caledonia," London, 1810, Vol. 11., p. 772.

² Chalmers: *Op. cit.*, Vol. 11. p. 769.

³ Macgibbon and Ross: "Ecclesiastica. Architecture of Scotland," Edinburgh, 1896, Vol. 11., p. 486.

⁴ Beatson: "The Knights Hospitallers in Scotland," Glasgow, 1903.



PRIORY OF TORPHICHEN, AS IT APPEARS AT THE PRESENT DAY

(Photo by H. M. Office of Works)

House of the Hospitallers in London, showing that Scotland was nominally at least under the English langue.¹ Nevertheless, many of the Scottish recruits served in the various langues of France. The toughness of the young Scottish knights is attested by the fact that one of them, Thomas Eliot, who was hanged at Hexham early in the 14th century, was found to be alive when the body was removed for burial, so that he was granted a free pardon and allowed to depart abroad.²

The Priory at Torphichen stands some five miles south of Linlithgow, an important royal residence of the mediæval Scottish kings, in a hollow among the hills, where it was protected by a surrounding morass from attack. Although at the present day shorn of its outer defences, it still presents a combination of a religious and military edifice.

Priory of
Torphichen

Here, in the 13th century, the knights and their followers continued to exercise a beneficent influence over the surrounding district, and here a "Sanctuary," wherein no man might be seized or harmed, extended for one mile in every direction round the building. The grounds of the Preceptory were a Scots acre in extent, enclosed by a moat, and a portion of them was known as "the Knights' Garden," in which medicinal herbs were cultivated. Donations and land were freely bestowed upon it by several of the Scottish kings, and at one time it is said to have held possessions in eight of the counties of Scotland and to have had a large revenue. The Scottish property of the Knights Templars was transferred to it in 1312 on the suppression of the latter Order.

The head of the hospital in Scotland, from 1291 to 1298, was Alexander de Welles, an Englishman, who swore fealty to Edward I., in 1296, and fell at the battle of Falkirk fighting on the English side in July, 1298.³ Before the battle, the Priory had been used as headquarters by William Wallace, and here, in March, 1298, he signed the only charter issued by him as Guardian of the Kingdom of Scotland in the name of King John Balliol.

A service like that rendered by the good Lord James Douglas to King Robert Bruce was presumably rendered by a Scottish knight of the hospital to James I., whose heart was removed from his body and carried on a pilgrimage to the east. From the "Exchequer Rolls of Scotland," it appears that, in 1443, a Knight of St. John returned from Rhodes bringing back the heart of King James, which it had not been found possible to deposit in Jerusalem. This knight received £91 for his travelling expenses.⁴

The age at which a novice might enrol among the knights of the hospital was 16, and he took up residence in the Preceptory at the age of 20, after which he underwent three years' of active service and two years' residence in the Preceptory, learning the duties of office. After this, he was appointed commander

¹ "Charters of Holyrood" (Bannatyne Club), p. 36.

² Edwards: "Transactions of Scottish Ecclesiological Society," 1906-1909, Vol. II, p. 382.

³ M'Call: "History of the Parish of Mid-Calder," Edinburgh, 1894, p. 252.

⁴ "Exchequer Rolls of Scotland," Vol. V., pp. xliv., 156, 179.

of some subsidiary station, and presumably managed the property of the hospital in some outlying district, and thereafter he was eligible for promotion to a more important position.¹ During the 15th and 16th centuries, the knights of the hospital, established first at Rhodes and later at Malta, carried on unceasing warfare with the Turks and the pirates of the Southern Mediterranean shore. Here many of the Scottish knights took part in the great adventure of this bulwark between the Christian countries and the invading Moslem hosts and fleets.

The last
preceptors

The last four Preceptors at Torphichen were Sir William Knollis, who was Treasurer of Scotland, Sir George Dundas, Sir Walter Lindsay and Sir James Sandilands. Of Lindsay, who was Preceptor from 1533 to 1547, at the end of an adventurous life, his contemporary Pitscottie says:—

“ . . . ane nobill and potent lord nameit Schir Walter Lyndsay knycht of Torfeichin and lord of S. Johnne, who was weill besene and practissit in weiris baitht in Itallie and had fouchin oft tymeis against the Turkis in defence of the Christieane men in companie witht the lord of the Rodis (*Rhodes*), and thair he was maid knycht for walliezand (*valiant*) actis and thairefter come in Scotland and seruit our king. . . ”²

This sagacious old warrior was in command of the Scottish vanguard at the battle of Haddenrig, near Jedburgh, in 1542, when an English army of 10,000 men was defeated.

Sir James Sandilands, like his father, was a personal friend of John Knox and of the Reformation. Although he had been presented to the Preceptorship of Torphichen by the Pope in 1547, he threw in his lot with the Reformers, and, in 1563, resigned the Preceptorship, when the possessions of the Hospital of St. John



A KNIGHT OF THE HOSPITAL OF ST. JOHN
OF JERUSALEM

(After Bedford and Holbeche)

¹ Porter: "The Knights of Malta," London, 1884, p. 320.

² Lindsay: "Historie and Cronicles of Scotland," Edinburgh, Vol. I., Chap. xxxvi. p. 396.

in Scotland were made into a temporal barony carrying with them the title of Lord Torphichen, which he assumed. The present Lord Torphichen is descended from him. Those of the brethren of the hospital who remained attached to the Roman Catholic religion left Scotland with David Seton, who was made Roman Catholic Preceptor, and died in Germany in 1591.¹



SIR JAMES SANDILANDS

Last Preceptor of Torphichen and First Lord Torphichen

(From a portrait in the possession of the Rt. Hon. Lord Torphichen)

lithgow, belonged to the religious order of Lazarites, and is mentioned in the year 1426, when Robert de Lynton was nominated to the post of master by Queen Jean, wife of James I.⁴

Hospitals must have existed in connection with the subordinate settlements of the Knights Hospitallers, as well as the hospitium at Torphichen, of which the site is still pointed out. There was another Preceptory at Kirkstyle, in the Parish of Ruthwell, where several tombstones were, early in the last century, to be seen in the churchyard, bearing the insignia of this celebrated fraternity,² and still another at Balantrodach, or Temple, in Midlothian. In regard to houses belonging to the Hospitallers at Linlithgow and Glasgow, Beatson suggests that these were used as hospitals for the sick.³

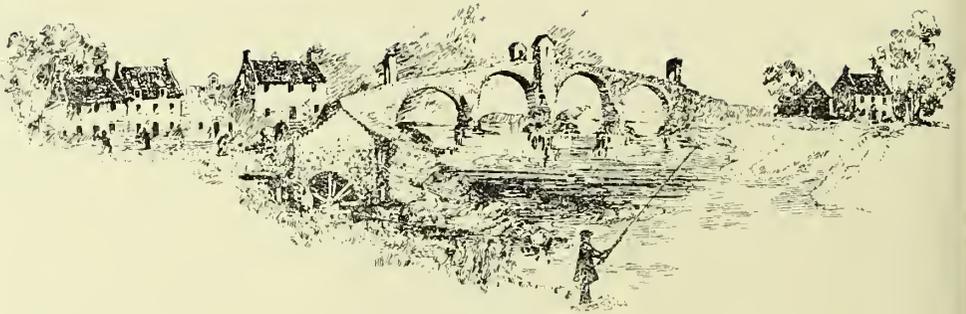
The Hospital of St. Mary Magdalen, in Lin-

¹ Bedford and Holbeche: "The Order of the Hospital of St. John of Jerusalem." London, 1902, p. 67.

² Chalmers: "Caledonia," Vol. III, p. 154. Two of these stone slabs can still be seen built into the wall of the Free Church at Ruthwell. They bear incised representations of swords, crosses, baldric and horn, etc.

³ Beatson: "The Knights Hospitallers in Scotland," Glasgow, 1903, p. 26.

⁴ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 477.



THE OLD BRIDGE OF STIRLING IN 1700
Showing the HOSPITAL OF ST. JAMES at the end of the Bridge behind the mill and ruins of one
of the two Chapels which previously stood there



STIRLING, FROM CAMBUSKENNETH ABBEY, ABOUT 1680
Showing the considerable distance separating the Town from the Bridge, with its Hospital and Chapels
(From the engraving by Sleszer)

It had apparently been restored under James I. as a hospitium for the reception of pilgrims. It stood to the east of the burgh, at the foot of Pilgrim Hill. It seems to have been originally a hospital for lepers.



SEAL OF LINLITHGOW LEPER HOUSE

Stirlingshire

At Stirling, a Hospital of St. James stood at the end of the bridge (*see page 124*), having been granted to the Canons of Cambuskenneth serving God there, by King Robert III., in March, 1403. The chapel attached to the hospital, along with a chapel to St. Roche, was destroyed at the Reformation, but a reference to the hospital as still existing is found as late as 1709.¹ In the town the Hospital of Spittals stood in St. Mary's Wynd, having been founded by Robert Spittal, tailor to King James IV., in 1530.

Early hospitals in west of Scotland

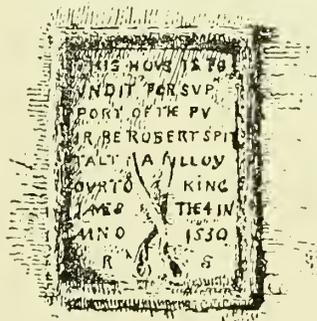
Dumbartonshire

A collegiate church, with a hospital for bedesmen, was founded at Dumbarton in 1450 by Isabel, Duchess of Albany and Countess of Lennox, who endowed the institution richly with various lands. The foundation was established in memory of, and in order that prayers might be said for the soul of, the Earl of Lennox, who was put to death by James I. on suspicion of having been concerned in maintaining the king's long imprisonment in England. The hospital for bedesmen was still standing about the middle of the 18th century, and its ruins then showed a long building of two storeys with round-headed windows, without roof but with walls still intact. It stood on the site of the present railway station of Dumbarton.²

At Kilpatrick there appears to have been from very ancient times a hospital for pilgrims going to the shrine of St. Patrick in Dumbarton Castle. In the 12th century, Beda Ferchan, a recluse, lived in a house of wattle, there to attend to the passing pilgrims (Gemmell).

Renfrewshire

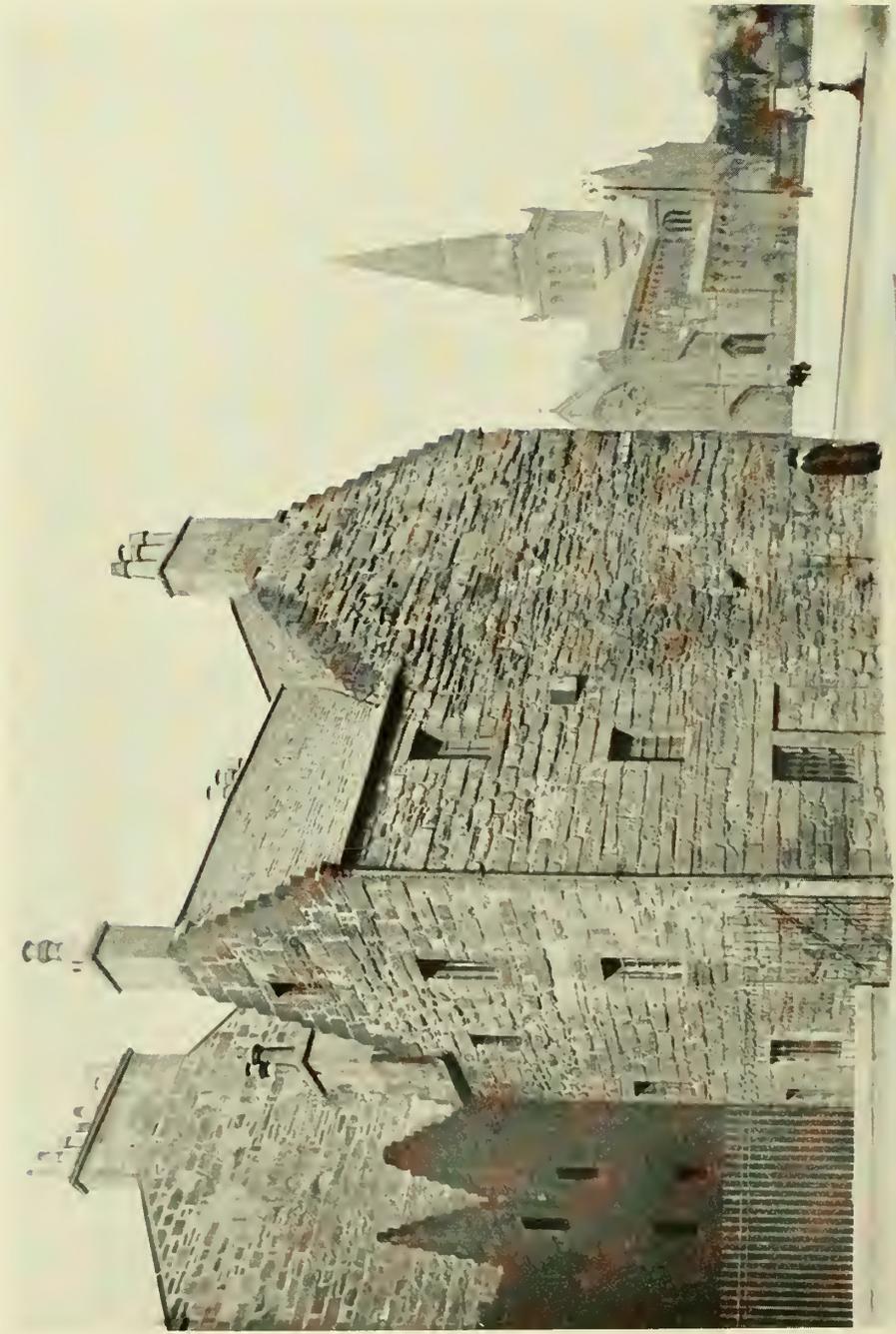
The only hospital in Renfrewshire, apart from those of the abbeys, appears to have been one founded, with the sanction of the prior and monks of Paisley,



FOUNDATION STONE of Hospital founded at Stirling in 1530 by Robert Spittal, tailor to King James IV.

¹ Fleming : "The Old Ludgings of Stirling," Stirling, 1897, p. 104.

² Macgibbon and Ross : "Ecclesiastical Architecture of Scotland," Edinburgh, 1896, Vol. III., p. 425.



HOSPITAL OF ST. NICHOLAS (PREVAND'S LORDSHIP), GLASGOW, WITH GLASGOW
CATHEDRAL IN BACKGROUND

The 15th century building is to the right, and the 17th century face on left

before the end of the 12th century, by Robert Croc, who gave the name to Crookstoun. The hospital and its chapel appear to have stood at the west side of Laveran Water. The hospital does not seem to have had a long existence.¹

Ayrshire

The most notable hospital in this county was that of St. Ninian's for lepers at Kingcase, supposed to have been founded by King Robert Bruce. It is noticed elsewhere (*see page 195*). A hospital dedicated to St. Leonard stood at Doonslee, north of the river Doon, in the reign of James IV., and later.²



RUINS OF THE HOSPITAL AT DUMBARTON

From a sketch by Paul Sandby, R.A., in 1747

(Original in National Gallery of Scotland)

Lanarkshire

At Glasgow, the Hospital of St. Nicholas was founded in 1471 by Andrew Muirhead, Bishop of Glasgow, close to his episcopal palace, for the support of 12 men and a chaplain, who acted as master of the hospital till the Reformation. Bishop Muirhead also built a chapel attached to the hospital in a Gothic style of fine ashlar work, and opposite to the hospital a manse for the chaplain.³ This hospital received benefactions from other sources: for example, Master Michael Fleming endowed a bed in it,⁴ and, after the Reformation, Archbishop Robert Leighton made some addition to its revenues.

Bishop
Muirhead's
Hospital of
St. Nicholas

¹ Chalmers: "Caledonia," London, 1810, Vol. III., p. 828.

² Chalmers: Op. cit., Vol. III., p. 497.

³ Chalmers: Op. cit., Vol. III., p. 658.

⁴ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 475; and "Chartulary of Paisley," p. 297.

Some time after the Reformation it became the town house of William Baillie, laird of Provan, and thus obtained the name of "Provand's Lordship." At the beginning of the 19th century, part of its revenues were still in the hands of the Glasgow magistrates, who made an annual distribution among four old men. In this hospital there existed the unusual provision of waiting maids to attend the sick.¹



HOSPITAL OF ST. NICHOLAS. INTERIOR OF AN APARTMENT

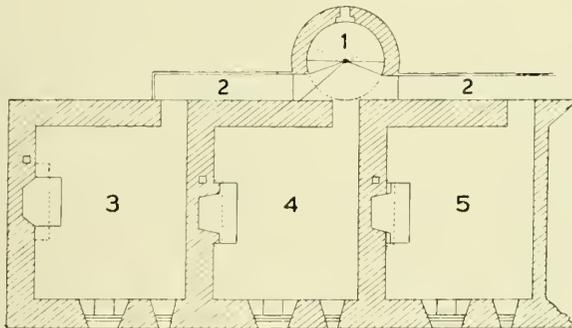
The small window on the left originally lighted a separate cubicle

The Hospital of St. Nicholas is almost unique among ancient Scottish hospitals in the fact that a large part of its building has been preserved and has recently been restored. The greater part is still a portion of the original building erected by Bishop Muirhead. In the beginning, the house was a tenement of three storeys, each divided into three self-contained dwellings or rooms, with large stone fireplace and window with stone seats. To the side of each window is a smaller window, which apparently admitted light to a small cubicle. The building, as it stands, thus provided nine separate dwelling-houses, but there is evidence that it extended originally further to the north than it does at present, and there was therefore, in all probability, another section which has now disappeared and

¹ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 475.

which contained three more rooms, thus affording twelve separate living rooms with cubicles for the twelve beneficiaries of Bishop Muirhead.

On the middle of the west side was a circular stone turnpike staircase, giving entrance to a wooden gallery on each storey, which ran for the greater part of the length of the building, and gave admission to the door of each room. This was a characteristic feature of the old houses in Glasgow and Edinburgh in the 15th and 16th centuries. In 1670, the wooden galleries were removed and the house was extended towards the west by a stone wing on either side of the central staircase, by which entry to the rooms is now gained.¹



PLAN OF HOSPITAL OF ST. NICHOLAS AS IN
15TH CENTURY

Showing: 1—Well Staircase; 2—Wooden Gallery of Access;
3, 4, 5—Three Apartments as at present, with supposed
continuation of another to the north

(After Whitelaw)

At the south end of the old Glasgow Bridge, in the district of Gorbals, stood the Hospital of St. Ninians for the accommodation of lepers, founded by the Lady of Lochow during the reign of David II. (*see page 196*).

Other Glasgow hospitals included one which was founded at the Stablegreen Port by Roland Blackader, in 1491, another in the parish of Cambuslang, to which belonged the lands of Spital and Spital Mill, and a hospital dedicated to St. John, founded probably by one of the bishops of Glasgow, which was in existence before 1319, and which stood at Polmadie.²

At the town of Lanark the Hospital of St. Leonard was established at an early date, about half a mile to the east of the town. It was governed by the Order of Lazarites, like the Hospital of St. Mary Magdalen, near Linlithgow. It was endowed with the revenue of various lands, including a tract in Carluke parish which was called Spital-Shiels. Its patronage passed through various hands, being finally in that of the family of Lockhart of Lee, and it continued up to the Reformation.³

¹ Harvey: "Provand's Lordship: The Bishop's Almshouse," Glasgow, 1920.

² Chalmers: "Caledonia," London, 1810, Vol. III., p. 657.

³ Chalmers: *Op. cit.* p. 656.

In the parish of Kilbride a hospital dedicated to St. Leonard existed in the 13th century at Torrans, and its warden, in 1296, took the oath of allegiance to Edward I. It passed out of existence at the Reformation.

In the parish of Shotts, James, Lord Hamilton, in 1471 founded a chapel and hospital for the poor, dedicated to St. Catherine of Siena. The hospital disappeared at the Reformation, but the chapel became the parish church. In the town of Hamilton there was also a hospital, which was suppressed at the Reformation, although another hospital for eight poor men was subsequently established there. Hospitals also existed at an early time in Rutherglen and in the parish of Stonehouse.¹

At Biggar, the Collegiate Church of St. Mary, founded in 1545-46 by Malcolm, Lord Fleming, Chamberlain of Scotland, included in its personnel six bedesmen, who appear to have been accommodated at a hospital in the neighbourhood.²

In Carnwath parish, near the place where the burn of Carnwath meets the South Medwyn, a hospital was founded for eight bedesmen by Sir Thomas Somerville in the beginning of the 15th century.³

Fifeshire

Early
hospitals
in central
Scotland

A hospital, dedicated to the Virgin Mary, stood at Scotlandwell, close to the Bridge of Leven. It belonged to the Trinity or Red Friars, and was founded by William Malvoisin, Bishop of St. Andrews, in the earlier half of the 13th century.⁴

At St. Andrews, an ancient hospital existing in Culdee times is mentioned by Sibbald.⁵ Various grants were made by successive popes to this hospital, as, for example, by Pope Alexander III., in 1163; by Pope Lucius III., in 1183; when the object of the grant to the hospital is described as being "in susceptione hospitalium pauperum peregrinorum"; and again Pope Innocent IV., in 1246, used the same terms. One-seventh of the altar offerings at St. Andrews were allotted to this hospital by Bishop Robert (1144), and David, King of Scots, gave a charter to the hospital for the sustenance of poor pilgrims.⁶ In Gordon of Rothemay's map the hospital is shown outside the walls to the west of the town.⁷

Sibbald, in referring to St. Leonard's College, founded by John Hepburn, Prior of St. Andrews in 1512, says that the building had previously been a hospital for 17 men.⁸ There were thus apparently at least two hospitals.

¹ Chalmers: "Caledonia," London, 1810, Vol. III., p. 659.

² Mackinlay: "The Pre-Reformation Church," Edinburgh, 1904, p. 371.

³ Mackinlay: *Loc. cit.*

⁴ Sibbald: "History of Fife and Kinross," London, 1803, p. 282.

⁵ Sibbald: *Op. cit.*, p. 179.

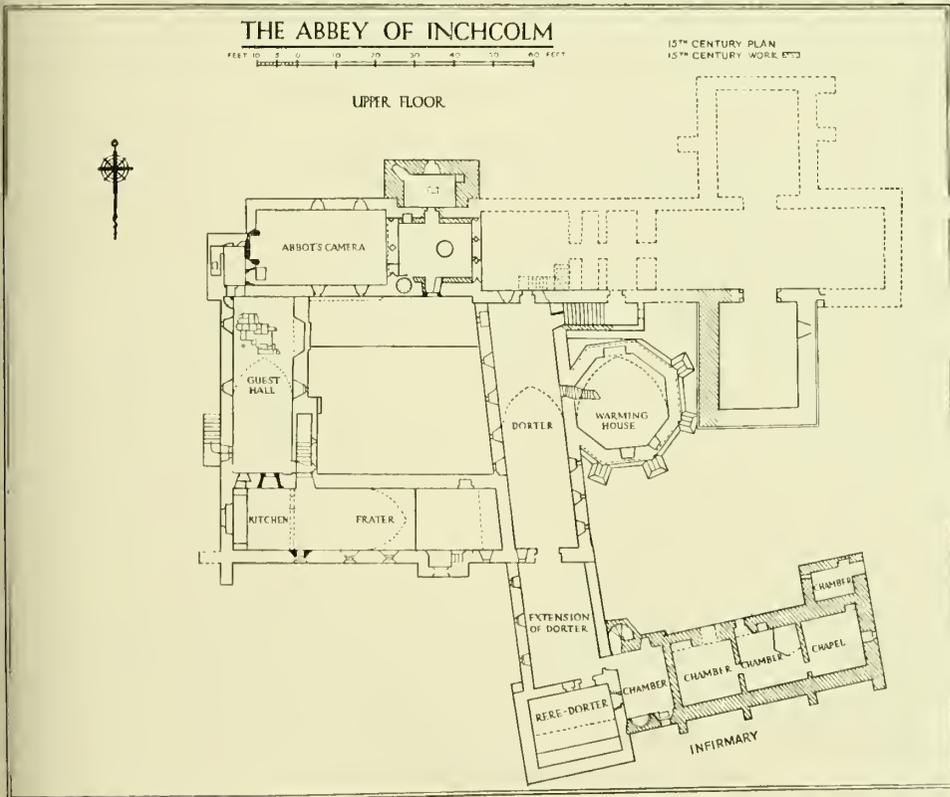
⁶ Liber Cartarum Prior. Sanct. Andree, 1841, p. 193.

⁷ "Bannatyne Club Miscellany," Vol. III., p. 324.

⁸ Sibbald: "History of Fife and Kinross," London, 1803, p. 270.

An old writer, speaking of St. Leonard's College, says :—

“The Guest-hall called magna Aula Hospitum stood wthin the precinct of St. Leonards Colledge upon the south syde of ye outer closs. . . . I find also mention made of the infirmatorium canonicorum qch I conceive was ane appartment for the sick in the monasterie. . . . Fordon is expresse that Bishop Arnold died in this room, his words are ‘obijt in infirmatorio canonicorum,’ probably is meaned hereby the Zenodochium, now St. Leonards Colledge.”¹



PLAN OF THE ABBEY OF INCHCOLM
To show the arrangement of a Monastic Infirmary in the 15th century. For elevation of Infirmary, see Chapter IV.

(From Guide to Inchcolm, by permission of H.M. Office of Works)

At the Monastery of Inchcolm, situated on an island in the Forth, a group of buildings, dating back to the 12th century, shows the best preserved monastic infirmary in Scotland. The infirmary, which is quite separate from the guest hall, shows a range of four rooms placed above a cellar and kitchen, and situated

Monastic infirmary at Inchcolm

¹ Reliquie D. Andrea, or the State of the venerable and Primitial See of St. Andrews. Hutton MSS. Vol. VI. in National Library, Edinburgh.

on the southern aspect of the monastery. From the 14th century onwards monastic infirmaries ceased to be open halls and were cut up into a series of chambers, provided generally with a fireplace in each. The east-most chamber may possibly have been used as a chapel.¹

At Aberdour, on the mainland in the immediate neighbourhood of Inchcolm, a Hospital of St. Martha was founded in 1474 by James, Earl of Morton, for the relief of poor pilgrims and travellers. The vicar of Aberdour, who was one of the canons of Inchcolm, was appointed its perpetual administrator, and the inmates were under the care of four Sisters of the Order of St. Francis, or Poor Clares. The hospital was established close to a celebrated holy well of St. Fillan—eye well, or pilgrim well—which had been a resort of healing from very ancient times. It was situated on the south side of the public road, near the ancient church of St. Fillan.²

At Dunfermline, a chapel and hospital, dedicated to St. Leonard and situated at the lower end of the town on the road to Queensferry, is said to have existed from the time of Queen Margaret in the 11th century. In later times it provided accommodation for eight widows, who had each a room and garden. The Abbot of Dunfermline was its patron before the Reformation, and in the reign of James VI. its patronage was gifted to Queen Anne of Denmark (Gemmell).

Hospitals also appear to have existed in this county at Crail, Culross, Ardross near Elie, Cupar, where there was a hospice of St. John, and at Uthrogal in the parish of Monimail, where stood an ancient leper hospital, of which the funds were diverted by Queen Mary of Gueldres to Trinity Hospital in Edinburgh.

Wood's Hospital at Largo was a later foundation, established in the reign of Charles II. (*see page 139*).

Perthshire

In Perth, or St. Johnston's, as it was called in ancient times, there were four monasteries as well as other religious houses, each presumably provided with its hospitium and infirmary. The Nunnery of St. Mary Magdalen, with its chapel and hospital, stood about a mile south of the town.³ It was a very old foundation and was suppressed when the Carthusian Monastery, or Charterhouse, to the west of the town, was founded in 1429. The funds were used for the latter establishment, and, when the Carthusian Monastery in turn was suppressed at the Reformation, the Hospital of King James VI. was erected on its site. This post-reformation hospital for the needs of the poor of the city was founded in 1569 by the Regent Moray, in the name of King James VI.

The Nunnery of St. Leonard the Abbot, with its chapel and hospital, was founded before 1296. It was a little to the south-west of the town, and was also suppressed when the Carthusian Monastery was built, its lands and rents being

¹ Wilson Paterson : *Proceedings of the Society of Antiquaries of Scotland*, Edinburgh, 1927, Vol. LX., p. 241.

² Johnstone : "Guide to Aberdour," p. 17.

³ Mackinlay : "The Pre-Reformation Church," Edinburgh, 1904, p. 377.

given to the latter. A governess of this hospital at one time was that Lady Elizabeth Dunbar, daughter of the Earl of March, who had been affianced to the Duke of Rothesay, son of Robert III., but who was passed over by him in favour of Marjory, daughter of the Earl of Douglas, in consideration of a richer dowry. Lady Elizabeth Dunbar, retiring from the world, took the veil and became prioress of the nunnery and governess of the Hospital of St. Leonard.

St. Paul's Chapel, at the north-west corner of the New Row, was founded in 1434 by John Spens, of Glen Douglas, and had a hospital for strangers as well as for the infirm and the poor.¹

St. Catherine's Chapel, on the west side of the town, in the locality known as Claypots, was founded in 1523 by Sir John Tyrie, and had a hospital for the entertainment of poor travellers.

The Chapel of St. Ann, to the south of St. John's Church, had a hospital for the entertainment of strangers and poor persons, which had apparently been founded at an early date.²

At Dunkeld, a hospital dedicated to St. George was founded by Bishop Brown in 1510, for the support of seven old men.³

At Suggeden, on the river Tay, in this county, a hospital, under the rule of St. Augustine, existed in early times. Its master, Brother William, swore fealty to King Edward I. in 1296.

Forfarshire

At Brechin, the Hospital of Maison Dieu, or Domus Dei, was founded in 1256 by William, Lord of Brechin, a grandson of David, Earl of Huntingdon, brother of William the Lion. It was founded for the safety of the souls of King William and King Alexander of Scotland, and of John, Earl of Chester and Huntingdon, brother of the founder, Henry, his father, and Juliana, his mother.⁴ It was also styled in early times the Hospital of the Virgin Mary, and attached to the building was an extensive tract of excellent land.⁵ Part of the chapel which was attached to the hospital still remains in the centre of the town, and presents a good example of the first pointed style of architecture.⁶

Early hospitals in east of Scotland

The hospital is mentioned again during the reign of King James III., in 1477, but seems to have passed out of existence before the Reformation. Archbishop William Schevez was, in early life, master of this hospital. Its revenues, however, still survive, and until late in the 19th century were paid to the rector of the Brechin Grammar School, who enjoyed the official title of Regius Preceptor of Maison Dieu.

This hospital had no connection with the later hospital founded by King James VI. in 1572, for the relief of the poor, the lame and the miserable, orphans

¹ Marshall : " Historic Scenes in Perthshire," Edinburgh, 1880, p. 14.

² Marshall : *Loc. cit.*

³ Mackinlay : " The Pre-Reformation Church," Edinburgh, 1904, p. 378.

⁴ Keith : " An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 475.

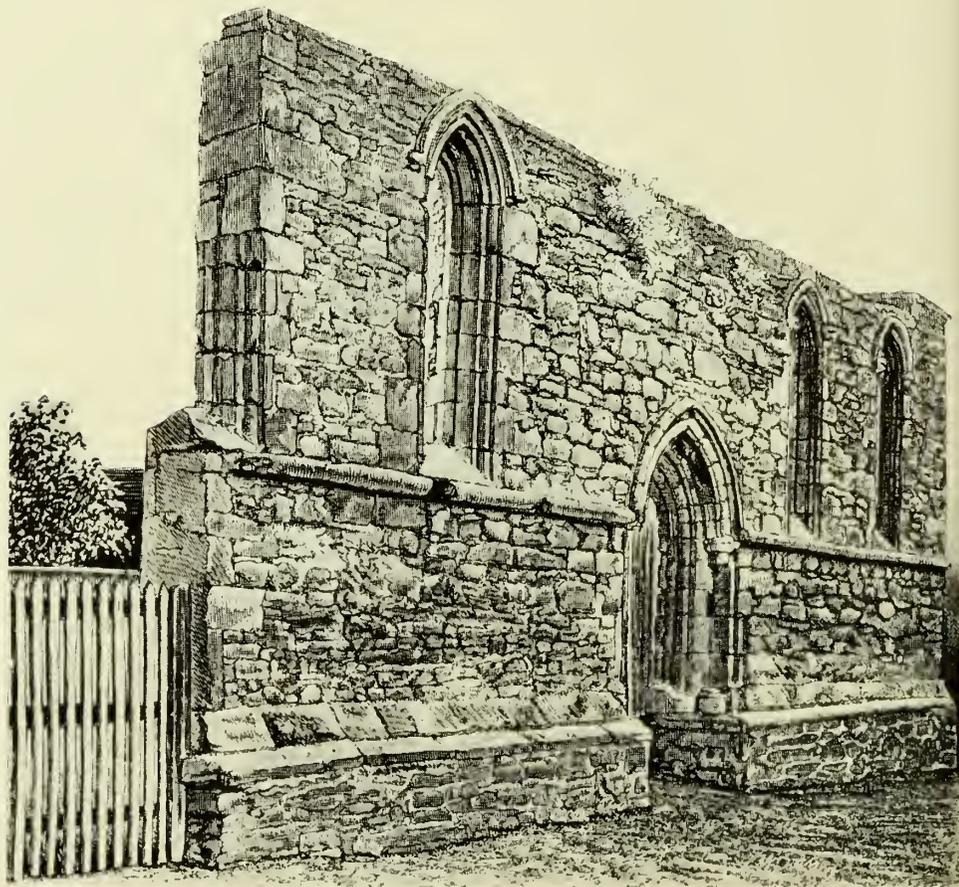
⁵ Black : " History of Brechin," Edinburgh, 1867, p. 255.

⁶ Macgibbon and Ross : " Ecclesiastical Architecture of Scotland," Edinburgh, 1896, Vol. II., p. 215.

and destitute persons, the revenues being drawn from rents bequeathed in pre-reformation times for masses and anniversaries. These revenues are still administered by the Town Council of Brechin.

Near Arbroath, about a mile south-west of the town, is the estate of Hospital-field, where stood an ancient hospital, of which Jervise gives the following particulars:—

“In connection with the Abbey (of Arbroath) there was also a Hospital or Infirmary, of much the same nature as those of the present day. There



PRESENT-DAY REMAINS OF CHAPEL ATTACHED TO MAISON DIEU AT BRECHIN
(After Black)

was attached to it a chapel, which appears towards the close of the fifteenth century to have fallen into a state of great dilapidation, and for the repair of this the rents of the lands of Abernethy and the chapel lands of Dron were mostly appropriated. The hospital, dedicated to St. John the Baptist, stood

nearly two miles south-west of the Abbey ; and, in 1325, when the lands are first recorded as being let by the Abbot, the tenants were bound to build, during the first year of a five years' lease which they had of the lands, a barn and byre, each forty feet in length. . . . Upon the site of this old byre and barn the fine hall of the mansion-house of Hospitalfield is erected ; and it is believed that the agreement regarding the erection of the byre and barn referred to furnished Sir Walter Scott with the locality of 'Monkbarns' in his novel of *The Antiquary*."¹

At Montrose, a hospital dedicated to the Virgin existed in the 15th century, and to it belonged the lands of Spittalshiels in Kincardineshire.²

At Dundee, a convent of the Red or Trinity Friars was founded by Sir James Lindsay, Knight, in 1390. Attached to this was a hospital, of which the revenues appear to have been considerable.³ It seems to have been connected with the abbey at Coupar Angus. This abbey also possessed Coupar Grange, which was probably the home-farm of the abbey, where the abbot had a country seat and to which the monks occasionally retired when sick.⁴

Aberdeenshire

During the reign of King Alexander III., Alexander Cumyn, Earl of Buchan, founded two hospitals in this district. Of these, one was at Newburgh on the Ythan ; the other, dedicated to St. Congan, was at Turriff, and maintained a master, six chaplains and 13 poor husbandmen of Buchan. King Robert I. conferred upon this hospital the lands of Pets, as a gift for the soul of Nigel Bruce, his brother.⁵

At Aberdeen, St. Thomas's Hospital, known later as the Beadhouse, was founded in 1459, by John Clatt, Canon of Aberdeen, and stood near St. Nicholas's Church.⁶

At Old Aberdeen, a hospital was founded by Bishop Gavin Dunbar, in 1532, for 12 old men, with a preference to inhabitants of the bishop's lands.

Bishop
Dunbar's
hospital

Orem gives the following account of this hospital in 1724 :—

"The said Bishop Gavin Dunbar granted a Charter at Edinburgh, February 25, 1531, founding an hospital for twelve poor men, an hundred feet in length and thirty-two in breadth, having a timber steeple with a bell ; twelve little chambers, with as many little chimneys for a little fire in each of them ; a common kitchen ; and in the east end an oratory. Dominus John Erskine had got from the king 200 l. yearly out of the fishing and lands of Aberdeen, which the said Bishop bought from him, and mortified it to the said 12 poor men. Each should get twelve merks of said sum at four terms in the year, and a merk to buy a white coat. Their director was to get five

¹ Jervise : "Memorials of Angus and Mearns," Edinburgh, 1885, Vol. I., p. 231 ; also Scott : "The Antiquary," second edition, Vol. I., p. 28.

² Mackinlay : "The Pre-Reformation Church," Edinburgh, 1904, p. 378.

³ Warden : "Angus or Forfarshire," Dundee, 1881, Vol. II., pp. 113 and 128.

⁴ "New Statistical Account of Scotland," Vol. X., p. 1143.

⁵ Keith : "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 479.

⁶ Mackinlay : "The Pre-Reformation Church," Edinburgh, 1904, p. 380.

merks of said sum, and the rest for bringing fire to them. They who were to be admitted to this hospital should be unmarried men of sixty years. . . .

None were to be received but such as were of a good conversation, and lived in the bishop's lands; or those who had wrought about the kirk, the bishop's palace, prebend's lodging in the chanry, about the bridge of Dee; or had done service in the King's wars; which failing, the blind and the lame, &c."¹



HOSPITAL OF BISHOP GAVIN DUNBAR, NEAR ST. MACHAR'S CATHEDRAL, ABERDEEN
(From a Print in Aberdeen University Library)

The hospital stood close to the Chanonry, and, although it disappeared in 1786, its funds are still administered for grants to poor persons.

On the road between New and Old Aberdeen, a hospital was founded in the time of William the Lion by Matthew Kyninmunde, Bishop of Aberdeen, for the benefit of the poor and sick. Later, apparently in the 16th century, this was

¹ Orem: "Old Aberdeen," Aberdeen, 1791, pp. 97 and 98; also Cormack: "Poor Relief in Scotland," Aberdeen, 1923, p. 155.

converted by the Town Council into a leper hospital. The ground belonging to the hospital was known as the Spital.¹

A hospital also existed at Kincardine-O'Neil, in Aberdeenshire, which had been founded before 1296, as in that year its master is recorded as one Wautier.²

Morayshire

On the outskirts of Elgin, a preceptory of Maison Dieu was founded in the first half of the 13th century, with a hospital for entertaining strangers and maintaining poor infirm people.³ It is mentioned in a Charter of 1224. In 1390, it shared the fate of Elgin Cathedral, being burned by the Wolf of Badenoch, but was apparently rebuilt, and existed up to the Reformation, when its endowments were granted by King James VI. to the Town Council of Elgin for the support of poor men (Gemmell). The funds were used in 1624 for the erection of a bedehouse known as the "hospitalium burgi de Elgin," which was replaced by another in 1846.

Early hospitals in north of Scotland

A Hospital of St. Nicholas stood on the east bank of the Spey, close to Boat of Bridge, having been founded by one of the bishops of Moray for poor men and travellers. Walter de Moravia was an early benefactor of the hospital about the beginning of the 13th century, and Muriel de Pollock some time later gave permission to the hospital to build a mill on the lands of Inverorkel.⁴ This hospital disappeared about the time of the Reformation, though its buildings could still be seen in the end of the 18th century.⁵

At Rothfan, a hospital for lepers was founded about the year 1226, by John Bisset (*see page 196*). Part of the revenue of this hospital is still preserved in the parish of Rothfan and used for annual grants to poor persons (Gemmell).

Ross and Caithness

Hospitals must have existed from an early period in the north of Scotland, for the Chancellor of Ross, in 1457, was appointed under the Act of King James II. to visit and reform them. The tradition of several of these is preserved by the name of Spital, which occurs in several places.

Near Halkirk, in Caithness, stood a Church of St. Magnus, attached to a hospital. The foundations of these buildings were traceable at a recent date.⁶

After the Reformation there was comparatively little new foundation of hospitals in Scotland until the voluntary hospital movement, which took place in the 18th century. In some places the Kirk Session of various parishes established temporary hospitals for the reception of sick paupers. The most notable exception was the establishment by John Cowane, a merchant in Stirling, who died

Post-reformation hospitals

¹ Mackinlay: "The Pre-Reformation Church," Edinburgh, 1904, p. 382.

² Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 476.

³ Penman: "A Tour in Scotland," third edition, Warrington, 1774, p. 287.

⁴ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 477.

⁵ Shaw: "History of the Province of Moray," Edinburgh, 1775, p. 263.

⁶ Cosmo Innes: "Origines Parochiales Scotiae," Edinburgh, 1855, Vol. II., p. 758.



COWANE'S HOSPITAL, STIRLING



NETHER HOSPITAL AT STIRLING

Illustrating the type of small hospital erected in the 17th and 18th centuries
for sick paupers

in 1637, and left funds to endow a hospital, to be called "Cowane's Hospital," for 12 decayed members of the Stirling Guildry. This foundation was on the pre-reformation plan of taking in sick and decayed persons for the remainder of their lives, but it proved quite unsuited to modern habits and ideas, and accordingly, about 1852, the hospital ceased to exist as such, the rooms for the patients were converted into a hall, and the endowments were used to provide grants for sick and decayed persons in their own homes.¹

A similar arrangement was made in regard to the endowments of various hospitals in Scotland, such as the Trinity Hospital in Edinburgh, and Spittal's Hospital in Stirling. The word "hospital" in Scotland also came to be used in the 17th and 18th centuries to indicate educational foundations, such as schools for boys.

Post-reformation hospitals were founded sometimes by private endowments, sometimes out of previously existing hospital funds, which had been dissipated at the Reformation and subsequently recovered. Such hospitals, for example, were found at Elgin, Perth, Brechin, Largo and Aberdeen. They were all of small size, and in most cases had only temporary existence, although in several instances the funds have been preserved for annual grants to poor persons.

The hospital at Largo affords an example of the manner in which some post-reformation hospitals deteriorated into mere homes for aged persons.

At the end of the year 1665, a hospital, for which funds had been left by John Wood, was finished at the church of Largo by Robert Mill, master mason in Edinburgh. This seems to have been a building of considerable size with 14 separate rooms and a hall for meeting. Each room had a bed, closet and fireplace. Round it was a large garden with a house for the gardener. By February, 1667, about six patients were in residence there.²

The building cost about £1476. In the year 1829, the original building was in a wretched state of repair, and the trustees resolved to erect a new hospital. In 1830, the present building was erected to provide accommodation for 16 inmates, each having a sitting and a sleeping apartment. In the old hospital each inmate was provided with a loom, so that he had the means, if he cared and was well enough, of augmenting his monthly instalments from the hospital funds. In 1790, twelve old men of the name of Wood, and the wives of all who had wives, were accommodated in the building. There are now generally four beneficiaries in the hospital,³ but the slight extent to which it functions as a place of medical treatment is indicated by the fact that £5 only is now expended as a salary to its medical officer.

It is a significant fact that more than a year after its completion, this well-appointed hospital was less than half full. Very few towns in Scotland during the 17th century possessed a hospital at all. The general absence of hospitals

¹ Shearer: "Stirling, Historical and Descriptive," Stirling, 1897, p. 65.

² Lamont: "The Diary, 1649-1671," Maitland Club, Edinburgh, 1830, p. 178.

³ Cunningham: "Upper Largo, Lower Largo, Lundin Links, and Newburn," Leven, 1907, pp. 29-31.

after the Reformation is connected with the fact that people had not then begun to crowd to the towns, while handiwork like weaving, smithwork and carpentry was performed by individuals in scattered cottages through the country. When sickness occurred, it was a simple matter to conduct treatment in the home, and in any case, disease that incapacitated from work (epidemics excepted) was probably less common under these conditions than it was later.

Although a marked improvement in medical treatment of the 17th century is observable as compared with that of the 16th, the general want of efficiency among those who professed medicine was also partly responsible for the inutility of collecting the sick in hospitals.

When, however, the tendency, which has been called the industrial revolution, began in the 18th century, the introduction of steam and other forms of power obliged the concentration of workers in the towns. In consequence of this, disease became more common, and, at the same time, the practitioners of medicine developed both a fuller knowledge and greater skill, so that hospitals were founded as there arose a need for them and a possibility of using them to advantage.

Later
attempts
at hospital
restoration

After the Reformation a more vigorous attempt was made to reform and restore the hospitals which had been founded for the poor and sick by pious donors in previous centuries. The attempt to recover the ancient deeds of foundation and to re-establish the hospitals, whose funds had been diverted to private advantage, was now made with greater success by the more democratic parliament.

In 1567, there was a general resolution for the reformation of hospitals according to former Acts, and all donations and dispositions made by Queen Mary and the Regent for "bigging of hospitallis" were approved.¹ In 1578, there followed a more definite Act for the restoration of hospitals than had ever been passed before, and a report on the matter was ordered to be made to the Privy Council before the following Easter.² In 1579, a similar resolution formed part of an "act for pwnishment of the strang and ydle beggaris and relief of the pure and impotent."³ In 1581, ten commissioners were appointed for the reformation of the hospitals, maisondieus, almshouses, and bedehouses and for reducing them to their first institution. The Act employs the following somewhat strong language in regard to the situation:—

"That the present possessors of sundrie benefices under colour of reformation of the religion have appropriated the whole livings of the said hospitals, maisondieus, almshouses and bedehouses to their own uses and their heirs, or have sold the lands and rents thereof for great sums of money to others in feu farm, and further have demolished the godly houses that were appointed for receiving and lodging of the poor and applied the same to their own particular uses . . . a deed assuredly that in no part of Christendom, yea not amongst the very Turks, would be suffered. . . ."⁴

¹ "Acts of the Scottish Parliament," 1567, Vol. III., p. 41.

² Op. cit., 1578, Vol. III., p. 98.

³ Op. cit., 1579, Vol. III., p. 140.

⁴ Op. cit., 1581, Vol. III., p. 219.

The commissioners were to visit hospitals if necessary and do everything to restore them as originally founded, and in 1592 a new set of commissioners was appointed to replace those who had meantime died.¹

These commissioners at last, after a century and a half of ineffective attempts to remedy what had been a notorious evil, acted with determination and apparently with success, as shown by the following Acts :—

In 1584 and 1585 the friar lands of Aberdeen were set aside for the benefit of the hospital of that city.²

In 1587, as a preliminary measure, various grants which had been made by the king, in his minority and apparently under bad advice, out of the funds of hospitals and maison dieus, were revoked.

In the same year a sweeping measure was introduced as regarded the burgh of Edinburgh. It was shown that the Town Council of Edinburgh had already spent great sums in building a hospital (Trinity Hospital) where the Queen's (Mary of Gueldres) Hospital had previously stood, and that they had lately also erected a college (now the University of Edinburgh) "for the instruction of the youth in learning." The king and parliament therefore ratified the grants made in 1566 by Queen Mary, the king's mother, of all property, of all religious houses whatsoever, situated within this burgh to its Town Council, on the understanding that the money would be used for the purposes of these two institutions.³ This was still further secured by Acts of Parliament in 1592 and later.⁴

In 1592, the commissioners dealt with the hospital at Perth, and parliament ratified the grants to the hospital in this town of the endowments previously in possession of the Blackfriars, Franciscans, Whitefriars and Charterhouse monastery, previously existing in Perth.⁵

In the 17th century there followed various Acts of Parliament of minor importance in regard to hospitals. Thus, in 1633, there was another Act against the inverting of pious donations for colleges, schools and hospitals which, upon some specious pretences, had been used in a manner different from the disposer's intention.⁶

In 1641, an Act was passed, with the consent of the General Assembly of the Church, to apply certain feu duties derived from ancient chaplainries in Aberdeenshire to support a hospital at the Chapel of Garioch, where there had been erected for this purpose "ane house of tua houss heichte" at the expense of Thomas Erskine of Pittodrie, whose ancestors had held the Barony of Ballhallgardie since the time of Robert Bruce.⁷

¹ "Acts of the Scottish Parliament," 1592, Vol. III., p. 549.

² Op. cit., 1585, Vol. III., p. 399.

³ Op. cit., 1587, Vol. III., p. 441.

⁴ Op. cit., 1592, Vol. III., p. 582.

⁵ Op. cit., 1592, Vol. III., p. 581.

⁶ Op. cit., 1633, Vol. V., p. 22.

⁷ Op. cit., 1641, Vol. V., p. 513.

In the budget presented to Parliament in 1659, under Richard Cromwell's Protectorate, the expenses of a hospital at Edinburgh are set down at £587 10s. 6d.¹ Finally, in 1696, in the time of King William, the old subject of the misapplication of hospital funds came up again. The king in this year is recommended to cause all hospitals to be visited, and their rents, revenues, rights and foundations to be inspected, so that whatever lands and other property have been misemployed may be restored.²

The moral to be drawn from this long series of interventions throughout three centuries on the part of the king and Parliament on behalf of hospitals, whose revenues had been misappropriated or were gradually disappearing, is that no hospital in Scotland, supported on a charitable bequest, or managed at the pleasure of a private patron or public body, has been able to maintain its permanence. It was only in the 18th century when hospitals arose, erected and maintained by the living interest and voluntary contributions of those who were directly benefited by their continuance, that the hospitals were able to perpetuate their existence and increase their efficiency. (See Chapter XVIII.)



SEAL OF TRINITY HOSPITAL, EDINBURGH
Before the Reformation

¹ "Acts of the Scottish Parliament," 1659, Vol. VI., p. 786.

² Op. cit., 1696, Vol. X., p. 64.

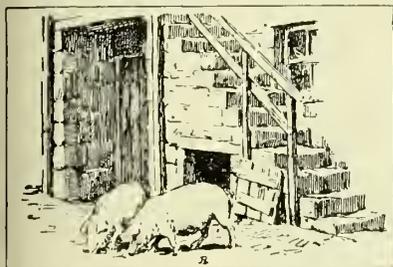
CHAPTER VII

MEDICAL RENAISSANCE IN THE TIME OF JAMES IV.

DURING the 15th century the Town Council of Edinburgh appears to have become very much exercised about the health of the city and its cleansing, with the result that many minutes appear in the records of the burgh during the latter half of that century and the early 16th century, containing regulations for the prevention of the spread of infectious diseases.

An objectionable practice of the inhabitants of the city in early times appears to have been the keeping of swine, which were allowed to wander freely

Public
health
measures



SWINE IN EDINBURGH STREETS

Showing the outside stair, which was a feature of old Scottish houses, with the sty beneath it

in the streets and pick up what they could. In 1450, it was ordained that all men and women who had "swyne" wandering in the town should remove them out of the town or keep them "in band." If the swine were found loose, they were to be forfeited and their price applied to the building of the kirk.¹ In 1494, various regulations were laid down in regard to the sale of poultry, geese, flesh and other easily corruptible kinds of food. It is quite in accord with recent legislation that the dealers in poultry, geese and other wild fowl

were obliged to sell them alive or fresh pulled, and forbidden to "powder" them, while any fleshers "powdering" flesh for preservation were liable to have this confiscated.²

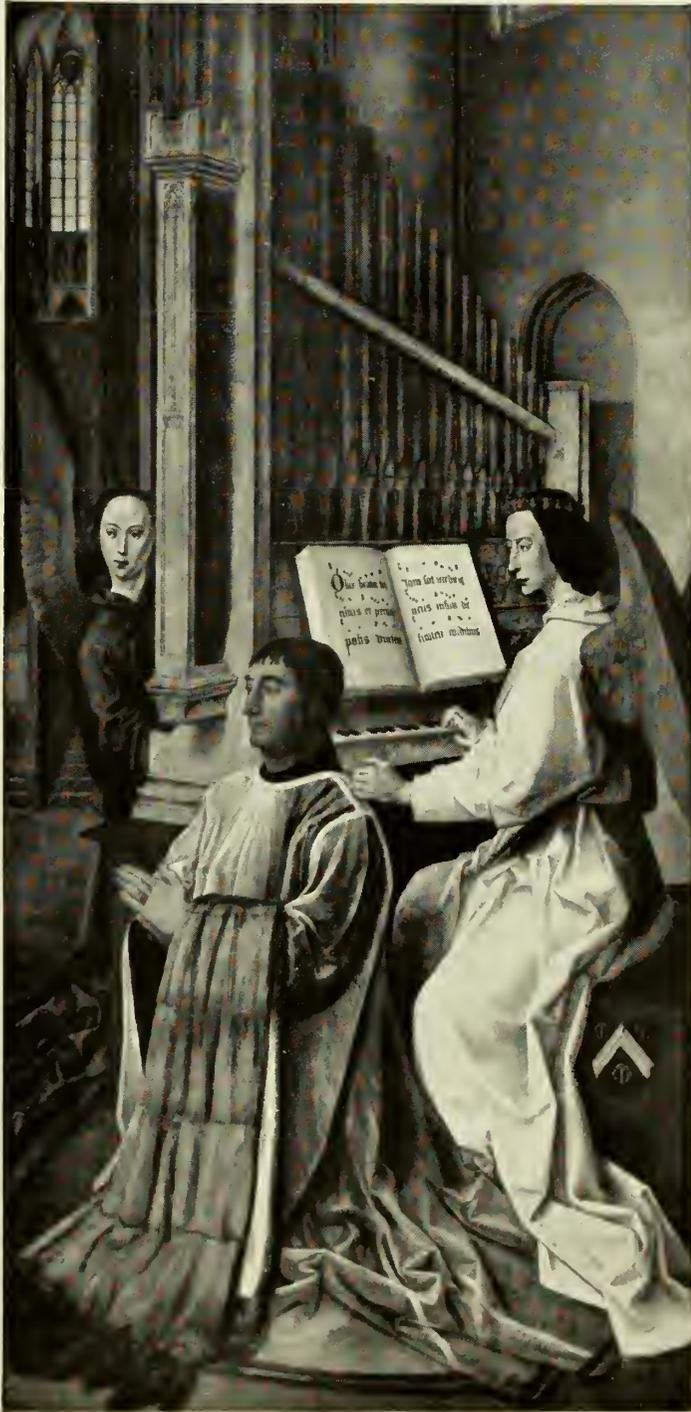
Milk, together with its derivatives, as the state of society was pastoral rather than agricultural, formed the chief staple of food. Meat or fish was also largely used. Oatmeal, which was boiled or baked in cakes, was the cereal mainly cultivated, while bread and vegetables were little used, and this may have been productive of several diseases. The principal fish was salmon, which seems to have been more plentiful in mediæval Scotland than at the present day, and formed for several centuries an important export to England and the Continent. Ale was the only form of intoxicating liquor, and spirit was as yet unknown except among the remedies of the physician.³ Coals were excavated in Lothian and used for

Food

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," p. 12.

² *Op. cit.*, p. 67.

³ Pinkerton: "History of Scotland," London, 1797, Vol. I., p. 146.



THE FOUNDRESS OF
TRINITY HOSPITAL

Queen Mary of Gueldres, widow of King James II, wearing a coronet, is depicted as Saint Cecilia, playing on an organ. The figure kneeling in the foreground is that of Sir Edward Bonkil, the first Provost of Trinity College Church and Hospital. The third figure is believed to be that of a daughter of the Queen.

The original picture, painted as a panel of the altar-piece of Trinity College Church, is attributed to Hugo van der Goes (about 1475).

It is believed to have been carried away by the English Army under the Earl of Hertford in 1544, was restored to Scotland in 1857, and is now preserved in Holyrood Palace.

*(Reproduced by gracious
permission of
His Majesty King George V.)*

warming the houses in place of wood, a matter which had excited the surprise of Æneas Sylvius, afterwards Pope Pius II., when he visited Scotland in the reign of James I.¹

With the rise of democracy in the 14th century, Guilds of craftsmen came into existence in the towns, forming trades unions with very stringent regulations. In Scotland, as in England, the merchant burgesses of the towns were favoured by the Crown as an offset to the dangerous power of the nobles. Among other Guilds, that of the barbers was in active operation prior to 1451. In that year we find Queen Mary of Gueldres exerting her influence to obtain the entrance of Aitkyne, a barber, presumably attached to the court, whom she desired to be admitted to the Guild. It is evident, from the following Town Council minute, that Aitkyne, in addition to practising the minor surgery customary to a barber, also acted as an apothecary :—

An early member of the Barbers' Guild

“ 12th May, 1451. Aitkyne, barbi tonsor, effectus est burgensis ad instantiam domine Regine gratis datur et etiam conceditur sibi [blank] gilde pro tempore vite sue et in amplius vt possit vti libertate gilde tempore vite sue, soluendo species et vinum nusquam est sibi successurus post obitum ad libertatem gilde.

“ Aitkyne, barber, is made burgess at the instance of Our Lady the Queen, without payment, and it is also conceded to him [blank] of the guild for the period of his life, and further, that he might use the freedom of the guild for the period of his life, paying spices and wine, and no one shall succeed him in the freedom of the guild after his death.”²

An incidental reference in a letter from James IV. to the Town Council, indicates that a house and booth in the Bellhouse of the city had been occupied in the time of his grandsire (James II., 1431-1460) by an apothecary. The letter of 1509 requests that the same house and booth may be assigned to “Maister Stephane, ypothegar, sa that he may be enterit thairintil and vse the samin with his materiall and spisery sa that he may be fundin thair redy to do ws seruice.”³

An important Act, having reference to the apothecaries, was passed by the Parliament of James II., which met at Perth on 4th May, 1450. This enacted that no manner of poison was to be brought into the realm. Even the importation of poison was to be regarded as treason, and any person bringing in poison or having it in his possession was, if convicted, to forfeit life, land and goods to the king.⁴

Regulation of poisons

We may assume that in making regulations for the betterment of the public health, which were sometimes apparently initiated at the instance of the king,

¹ Fil II. : “Commentarii,” Frankfurt, 1614, p. 4.

² “Extracts from the Records of the Burgh of Edinburgh, 1403-1528.” p. 12.

³ Op. cit., p. 125.

⁴ “Acts of the Scottish Parliament,” 1450, Vol. II., p. 39.

the Town Council took the opinion of those like Aitkyne who had experience qualifying them to give advice.

The
apothecaries

The apothecaries of the 15th century seem to have practised successfully and unostentatiously, but an indication of the drugs they used and of their general method of practice may be gained from the medical manuscripts, both Latin and Gaelic, to which reference has already been made. There seems to have been a tendency to long and imposing prescriptions, which are satirised by Robert Henryson (1430-1506), the Dunfermline poet, in "Sum Practysis of Medecyne." The fact that a well-known and popular poet should consider it worth his while to poke fun at the apothecaries shows that this calling was of good standing, and that his humour would be appreciated by all classes of society. The following remedies for colic and sleeplessness are two of six humorous prescriptions that he gives:—

DIA CULCAKIT.

Cape cukmaid and crop the colleraige,
ane medecyne for the maw, and ye cowth mak it,
with sueit satlingis and sowrokis, The sop of the sege,
The crud of my culome, with your teith crakit;
Lawrean and linget seid, and the luffage,
The hair of the hurcheoun nocht half deill hakkit,
With the snowt of ane selch, ane swelling to swage;
This cure is callit in our craft Diaculcakit.
Put all thir in ane pan, with pepper and pik,
Syne sottin to thiss,
The count of ane sow kiss, } For the collik.¹
Is nocht bettir, I wiss,

DIA LONGUM.

Recipe, thre ruggis of the reid ruke,
The gant of ane gray meir, The claik of ane guss,
The dram of ane drekterss, the douk of ane duke,
The gaw of ane grene dow, The leg of ane lowss,
fyve vnce of ane fle wing, the fyn of ane fluke,
With ane sleiffull of slak, that growis in the sluss;
myng all thir in ane mass with the mone cruke.
This vntment is rycht ganand for your awin vss,
With reid nettill seid in strang wesche to steip,
For to bath your ba cod,
quhen ye wald nop and nod; } To latt yow to sleip.²
Is nocht bettir, be god,

Increasing
transcrip-
tion of
medical
MSS.

A considerable amount of activity took place in the reigns of James III. and James IV. in the transcription of medical manuscripts. William Schevez had brought from the Continent to St. Andrews a number of medical works of earlier date, in addition to those already existing in various Scottish religious houses.

¹ "The Poems of Robert Henryson," Edit. by G. Gregory Smith, Edinburgh, 1908, Vol. III., p. 151.

² Op. cit., p. 151.

Magnus Makculloch, who transcribed for Schevez Fordun's *Scotichronicon*, also produced for Lord Borthwick at Leith, in the year 1487, a transcription of the "Regimen Sanitatis of Salerno."¹

In the copy of the *Scotichronicon*, known as "The Black Book of Paisley," is included an account which John of Bordeaux (Sir John de Mandeville) had written in Latin in the 14th century regarding the plague.² A translation of the latter into Scottish dialect called "Anc Tretyse Agayne the Pestilens," appears in the Register of the Monastery of Kelso,³ and dates from this period. The following are two extracts describing the nature of plague, the first ingeniously accounting for abscesses in the armpit, or the groin, and the second summarising the appropriate dietary:—

"The secunde chapter tellis how this seknes commys and qwhat is the cause thereof. In man ar iij principal parts and members, the hart, the lever, and the harnys [*kidneys*], and ilk ane of thir has his clengyng plas quhar he may out his superfluites and clengs him. The hart has his clengyng plas under the armys, that is in the hol of the oxster; the clengyng plas of the levir is betuix the the [*thigh*] and the body in the holis; but the clengyng plas of the harnys are under the eis or under the throte. Than this ewill comyss thus, qwen the porrys ar opyn for swm cause befor sayd, the air venoims enteyrs and alson menges the manny's blude, and sa rynnys to the hart that is gude and ruth of lyf, and distroyes the kynd of man and slayis him; the hart fleis kindly the tyngs that is aganys it, and puts the venome to his clingyng plas, and for that plas is stoppit that it may not out, it passes to the principale party nest, that is the levir, for to destroy it, and on the samyn wyse put it till his clengyng plas, and for that alsua is sparyt it may not out, bot passis to iij principal party, that is the harnys, and he puts it till his clengyng plas, and yhit it may not out there, and thus a lang tyme it is mowand or it rest in any plas xij ours or mar, and than at the last within xxiiij houris, gif it be not passand out with bledyng, it festyngs in some plas, and casts a man into the agu, and maks a byl or a bolg in some part of the iij clengyng plasis befor said, or else ner thaim.

"Als than it is gude to ete potag of almunds and drink tysan, or in the hete, smal ale and thyn; and gif the sekman covet gretly to drynk vyn, gif therfor venager mengyd wyt mekyl water, bot gif ye may get gwynt wyn of the Reyn, it is better than rede wyne. Oyse mesurably tham all drynks. Alsua it is gude to oyse a powder, that is sud agayn al venom, that is made of thir herbys, or of sum of thaim that best be gottyn, *scil.*, Lytan, pynpnole, turmentyn, and schavyose, and ij maner of spyces, *scil.*, bolwarnil and terra sygillata; thir twa spyces has the self vertu of thir herbys before wrytyn: thir spyciry brayde be thaim self, and drunkyn wyt wyn or ale, casts out vename fra the samyn place quhan it had entre gif a man be venomed, therefor qwa so dreds him of this seknes, kept him fra the tyngs that ar specyfyde in te first chapter."

A dietary, of which the original composition is attributed to Lydgate (1370-1451), occurs, turned into Lowland Scottish, along with a manuscript of the Bruce, and another poem, also in Lowland Scottish, "How the Good Wife Taught her Daughter," in a manuscript written in the year 1487.⁴ In its Scottish form this

¹ 4th Report, Royal Commission of Historical MSS., 1874, p. 351.

² British Museum, Royal MS. 13 E. x., f. 24.

³ National Library MS., printed for Bannatyne Club, Vol. II., p. 448; see also Murray: "John de Burdeus and The Pestilence," Paisley, 1891, p. 30.

⁴ MS. St. John's College, Cambridge, 191 (III), f. 167.

is said to be the work of John de Ramsay. Numerous copies of this poem in English are also extant, and parts of it are obviously taken from the "Regimen Sanitatis of Salerno." The following are the first two and the last two stanzas of the dietary, and give an idea of the whole:—¹

I.

For heill of thy body, kep wele fra cald thi hede ;
 Ete no raw met, tak gude heid thar to ;
 Drink hailsome aill, feyd the on licht bred,
 With appetit rise fro thi met also.
 With agit women fleschly haue nocht ado.
 Apon thi slepe drink nocht of thi cowpe ;
 Glad toward bed (and) at morow, both two ;
 And oys neur late for to sowp.

II.

And gif so beis that lechis doith the fale,
 Than tak gud hede till oys thyngis thre,
 Temperat dyet, temperat traual,
 Nocht malicius for none aduersite ;
 Mek in troubill, glad in pouerte,
 Rich of litill, content with sufficians,
 Neur grunching, bot mery lik thi degre ;
 Gif phisik lakis, mak this thi gouernans.

* * * * *

IX.

Dyne nocht at morow before thine appetit,
 Cleyne air and valking makis gud degestioun ;
 Betuix malys drink nocht for na plesand delit,
 Bot thirst or travale be the occasioun.
 And salt met doith gret oppressioun
 To febill stomokis, quhen thai can nocht restreyne
 Fra thingis contrar to thair complexioun ;
 Of gredy handis the stomok has gret peyne.

X.

Thus in two thyngs stondesth all the velth
 Of soull and body, quho so lest thame sew ;
 Modreth fude giffeth to a man his helth,
 And all surfat doith fra hym renew ;
 And cherite is to the saulis dew.
 This rescript both is of no potyngary,
 Of master Anton nor of master hew.
 Till all indifferent riches is dyetary.

James IV.:
 his interest
 in medicine

King James IV. (1473-1513) was an enlightened monarch, who, despite his faults, did much for the arts and commerce of his country. Among other branches of human activity, his foresight and perhaps his inquisitiveness, led him to take a special interest in medical affairs. A contemporary historian

¹ Barbour: "The Bruce," Edit. by Skeat. London, 1874, p. 537.

remarks of him: "In the meane tyme this nobill King James the fourt was weill leirnit in the art of mediecein and also ane curing sorugenaar that nane in his realme that wssit [*used*] that craft bot wald tak his counsall in all proceidingis."¹ Buchanan also says of him: "He greedily imbibed an ancient custom of the nobility, for he was skilful in curing wounds."



KING JAMES IV. (1473-1513)

(Original preserved in the Scottish National Portrait Gallery)

His self-confidence as a surgeon possibly led him at times to undertake operations which he could not successfully accomplish. In his treasurer's accounts there is an ominous entry:—

10 April, 1501. "Item, gifin to ye blind wif yat hed her eyne schorne xiijs."²

This very probably refers to an attempt on the part of James to couch cataracts, with an unsuccessful result. Fourteen shillings does not seem too much compensation to receive for loss of vision.

Lindesay of Pitscottie records a case which illustrates James's curiosity in matters of physiology. A man child was born with two bodies from the waist upwards. The king caused him to be carefully brought up

and taught, and he lived to the age of 28 years.

These united twins were born in the neighbourhood of Glasgow about the year 1490, and partly by reason of the singularity of the case, as well as from the attention paid to them by King James, and the fact that he had them brought up at the Scottish court, they attracted great attention at the time. Accounts of them are also given by Buchanan³ and Drummond of Hawthornden.⁴ Buchanan mentions

¹ Lindesay of Pitscottie: "Chronicles of Scotland," Vol. I., Book XX., Chap. VII., p. 235.

² "Accounts of the Lord High Treasurer of Scotland," Vol. II., p. 102.

³ Buchanan: "History of Scotland," Glasgow, 1827, Vol. II., p. 227.

⁴ Drummond: "History of Scotland," London, 1680, p. 202.

that one of the twins died several days before the other, and, as the dead body became putrescent, the other wasted away by degrees. Lindsay's account of the matter runs as follows :—

Case of
united
twins

" In this meane tyme thair was ane great marwell sene in Scotland. Ane bairne was borne, raknit to be ane man chyld bot frome the waist wpe was tuo fair persouns witht all memberis and protratouris peertaind to tua bodyis, to wit, tua heidis weill evit, weill eirit and weill handit be tua bodyis ; the on bak was to the wtheris, bot frome the waist done they war bot on personage and could not weill knaw be the Ingyne of man quhilk of the tua bodyis the legis and previe memberis procedit. Notwitthstanding, the kingis maiestic gart tak great enre and deliegence wpoun the wbring of thir tuo bodyis in ane personage, gart nurische them and leir them to pley and singe wpoun the instrumentis of musick quho war become in schort tyme werie ingeneous and cunning in the art of musick quhairby they could pley and singe tuo partis, the on the tribill the wther the tennour quhilk was werie dulce and melodious to heir be the common pepill quho treatit thame wondrous weill. Also they could speik sindrie and dyuerse langagis, that is to say Latine, Frinche, Italicans, Spanis, Dutch, Dens and Ingliche and Earische. Thir tuo bodyis lang conteinuant to the aige of xxviij zeiris and than the ane depairtit lang befor the wther quhilk was dollorous and heavie to the langest levar. ffor quhilk men requyrit of him and bad him be mirrie, he ansuerit and said : ' How cane I be merrie that hes my trew marrow as ane deid carieoun wpoun my bak, quhilk was wont to singe and pley with me to commone and talk in lyke maner. Quhene I was sade he wald gif me comfort and I wald do lykewise wnto him ; bot now I haue nothing bot dollour of the beiring of so heavie anc burthine, deid and cald, wndesolluit on my bak, quhilk takis all eardlie plesour frome me in this present lyfe. Thairfoir I pray to almighty god to delyuer me out of this present lyfe that we may be laide and dissollwit in the earth quhair fre we come.'"¹

The same historian naïvely records an experiment in the domain of psychology, which the king carried out in the year 1493 :—

Interest in
speech

" And also the King gart [*caused*] tak ane dum woman and pat hir in Inchkeytht [*the Island of Inchkeith*] and gair [*gave*] hir tua zoung bairnes in companie witht hir and gart furnische them of all necessar thingis . . . to knaw quhat langage thir bairnes wald speik quhene [*when*] they come to lauchfull aige. Sum sayis they spak goode hebrew bot as to my self I knaw not."²

The Lord High Treasurer's Accounts have an entry for 24th May, 1491 :—

" Item, to Gybbe Browne, to ryd to Paysla for James Leyche to Andro Wod."³

This was probably the celebrated admiral of James IV., Andrew Wood, who distinguished himself in naval actions against the English. It is not clear why a physician should have been fetched post-haste from Paisley to treat him, but the result was evidently successful, as Wood recovered and lived till 1539.

Practice in
blood-letting

Bleeding in the springtime was a regular practice, and James followed the usual routine in this matter. He must have been greatly pleased with the operation, for an entry runs :—

1491. " Item, to Domynico, to gif the King leve to lat him blud, xvijis."⁴

¹ Lindsay of Pitscottie : "The Historie and Cronicles of Scotland," Scottish Text Society, Edinburgh and London, 1899, Vol. I., p. 233.

² Lindsay of Pitscottie : Op. cit., Vol. I., p. 237.

³ "Accounts of the Lord High Treasurer of Scotland," Edinburgh, 1877, Vol. I., p. 177.

⁴ Op. cit., p. 177.

James apparently carried out the procedure himself with the leave of Domynico and presented the patient with the same fee which he himself had to pay to the leech for blood-letting from his own person, for on 27th May of the same year there is an entry :—

“ Item, til a leyche that leyt the King blud, xviijs.”¹

In 1496, James visited a patient who had been operated upon for the stone. Although apparently he did not venture upon this operation himself, he gave the patient a charitable grant :—

“ Item, to a man beside Coupir in Angus, that was new schorn of the stane, iijs. vjd.”²

A generous payment was made by the king to a leech who operated upon Brother John Litster for hernia, an entry running as follows :—

1505. “ Item, to him he gaif the lech that helit frer Johne Litstair of rymbirst and for his expens, vij li. vj s. viij d.”³

James appears to have been a generous patron of physicians to whom he repeatedly ordered grants to be made, although in several instances the treasurer's disapprobation may be gathered from the fact that he does not trouble to find out their names, but refers to them as the “ald leich,” the “leich with the yallow hair,” etc. The following are some of the entries with the sums they received :—

Patronage of
surgeons and
physicians

1500. “ Item, the xiiij day of Februar, be the Kingis command, giffin to the Ireland leich, xxviijs.”⁴

1501. “ Item, to Anthon Fedanis, leich, be the Kingis command, iiij Franch crounis, summa lvjs.”⁵

1501. “ Item (the xx day of March), to the ald leich that James Douglas brocht furth (of Air), be the Kingis command, xiijs.”⁶

1501. “ Item, be the Kingis command, to the leich with the curland hair, v Franch crounis, summa iij li. x s.”⁷

1502. “ Item, to the leich with the yallow hair, be the Kingis command, iiij Franch crounis, summa lvj s.”⁸

1502. “ Item, to Foulartoun, the leich, to by stuf, be the Kingis command, iij li. x s.”⁹

1504. “ Item, to Maister Robert Schaw, be the Kingis command, quhen he passit to Bothuile, to the lady liand seke, v Franch crounis, summa vij li.”¹⁰

1504. “ Item, to William Foular, for ane blud stane and thre unce uthir stuf for the Quene for bliding of the nes efter ane ressait of Maister Robert Schaw, xxij s.”¹¹

1503. “ Item, payit be the Kingis command, to Bardus Altovite, Lumbard, for Maister Johne, the Franch medicinar, new maid Abbot of Tungland, quhilk he aucht to the said Bardus, xxv li.”¹²

¹ “Accounts of the Lord High Treasurer of Scotland,” Edinburgh, 1877, Vol. I., p. 176.

² Op. cit., p. 305.

³ Op. cit., Vol. III., p. 156.

⁴ Op. cit., Vol. II., p. 97.

⁵ Op. cit., p. 132.

⁶ Op. cit., p. 141.

⁷ Op. cit., p. 140.

⁸ Op. cit., p. 153.

⁹ Op. cit., p. 340.

¹⁰ Op. cit., p. 436.

¹¹ Op. cit., p. 477.

¹² Op. cit., p. 423.

Practice as a
surgeon and
dentist

Healing of an ulcerated leg was another cure which the king carried out with success, as indicated by an item in November, 1504 :—

“ Item, to James Dog, quhilk he laid down for claith to be wippes to John Balfouris sair leg quhilk the King helit, ij s. viii d.”¹

The king was also a patron of the dentist's art, and on several occasions patients suffering from toothache submitted to a trial of his skill at Holyrood and accepted his largesse. In 1503, he had provided himself with “ ane turcas to tak out teith,”² and later (1507) he paid 2s. to “ Alane Coquheran for ane irm to byrn sair teeth.”³ In the earlier year there is an item :—

1503. “ Item, payit to the Abbot of Cambuskinneth, that he gair to the barbour that com to tak furth the Kingis tuth, xiiij s.”⁴

A little later, in 1511, the king took the matter in hand himself, and there is an item :—

“ Item, the ix day of Februar, to ane fallow, because the King pullit furth his twtth, xiiij s.”⁵

and again the roles of patient and operator were reversed when James pulled out two of his barber-surgeon's teeth, although at the regulation fee of 14s., which was paid by operator to patient :—

1511. “ Item, to Kynnard the barbour for tua teith drawin furth of his hed be the King, j Franch croun, xiiij s.”⁶

There is a moving little item which possibly refers to a touch for the King's Evil or scrofula :—

1508. “ Item, to ane pure barne that tuke the King be the hand, iij s.”⁷

The king from time to time made extensive purchases of medicines or chemicals. Thus, in 1503, John Mossman was sent over to Flanders to buy material, his travelling expenses costing 42s. In the previous year, William Foular, for a year's supply of these materials, received from the king £34 5s. 5d.; and again, in 1504, the materials supplied to the queen in Stirling by the same William Foular, are specified at a price of £3 8s.

1503. “ Item, to Johne Mosman, potingair, to his expens to pas to the see for to pas in Flandrez for stuf to the King, xliij s.”⁸

1502. “ Item, the xxiiij day of Januar payit to William Foular, potingair, for certane stuf tane fra him for the King be the space of ane yeir bipast, xxxiiij li. v s. v d.”⁹

1504. “ Item, to William Foular, potingair, for half ane pund galiga, half ane pund lang piper, half ane pund cannell, thre unce cubebarum, vij urinales, and other stuf send to Strivelin to the Quene, of sindri prices, iij li. viij s.”¹⁰

Interest in
alchemy

In addition to his medical and surgical pursuits, King James IV. took a special and practical interest in alchemy with a double purpose. It was supposed at that time that the four elements—fire, air, earth and water—were the indispensable

¹ “Accounts of the Lord High Treasurer of Scotland,” Edinburgh, 1877, Vol. II., p. 465.

² Op. cit., p. 419.

³ Op. cit., Vol. IV., p. 77.

⁴ Op. cit., Vol. II., p. 409.

⁵ Op. cit., Vol. IV., p. 330.

⁶ Op. cit., p. 332.

⁷ Op. cit., p. 114.

⁸ Op. cit., Vol. II., p. 395.

⁹ Op. cit., p. 356.

¹⁰ Op. cit., p. 445.

components of the whole of nature, but shared a fifth principle known as the "quintessence." This quintessence was supposed to have a special purifying, revivifying, rejuvenating property, and it was believed that, if found, it would have the power to refine other metals into gold, to heal disease, and to rejuvenate the body and prolong human life beyond its ordinary bounds. King James was therefore specially desirous of succeeding where previous alchemists had failed, both for the immediate necessity of finding gold, and for the beneficent purpose of alleviating disease.

There is a letter of 1508 from the king to James Inglis, a person who held various religious benefices in Cambuskenneth and elsewhere, and who apparently took much interest in this science. The following is a translation of the king's Latin letter, which thanks him for certain books on alchemy which were to be handed over to the king:—

"James, by the grace of God King of Scots, to his beloved Mr. James Inglis, greeting: We have received with pleasure the proof you have given of your friendly disposition in intimating in your letters to us that secret books, containing the sounder philosophy of alchemy, are in your possession; and that although most worthy men were soliciting these works from you, you have kept them, though with great difficulty, for our use, because you had heard that we were engaged in the study of that art. We give you thanks, and will give you due recompense when occasion requires, and have despatched a confidential messenger, James Merchestoun, to you, who will take charge of such books as you may wish to transmit to us, and whom you will trust in our name. Farewell. At our palace of Edinburgh," etc.¹

His chief associate in his alchemical experiments, however, was John Damian, a Frenchman or Italian, a man of pleasing address and great ingenuity, who, in 1501, held an appointment as physician in the royal household. In one of the poems of Dunbar he is said to have practised surgery and other arts in France before he arrived in Scotland, and the various references to the French leech, Maister John, the French mediciner, etc., in "Accounts of the Lord High Treasurer," indicate payments to him. Various chemicals were ordered for him from the Low Countries, and on one occasion at least he was sent to the Continent to fetch material. On several occasions gold was handed over to him for the purpose of being "multiplied," and another important material for the chemical experiments was wine, from which the quintessence was distilled. These facts appear from the following items in the treasurer's accounts.

1501. "Item, the thrid day of March send to Strivelin iiij Hary nobles and . . . to the leich for to multiply, summa ix li."²

29th May, 1502, to Robert Bertoune, "for certane droggis brocht hame be him to the Franch leich, xxxj li. iiij s."³

1502. "Item, gifin to the Franch leich, quhen he passit his way, be the Kingis command, iij Franch crounis; summa ij x li."⁴

The king was on terms of great intimacy with Damian, as appears from the fact that they constantly played cards and dice with one another. In 1504, the king appointed him Abbot of Tunland in Galloway, apparently

Experiments
with John
Damian

¹ Epist. Reg. Scot., No. lxxii. To Mr. James Inglis.

² "Accounts of the Lord High Treasurer of Scotland," Edinburgh, 1877, Vol. II., p. 138.

³ Op. cit., p. 148.

⁴ Op. cit., p. 149.

not with the intention that he should devote himself to religious duties, but that he might have more leisure for carrying on his experiments. Indeed, Dunbar says of him: "This Dignitary never chose to go to Mass though warned by the holy bell or skellat." He never put on religious vestments lest they should be defiled with the smoke of his laboratory.

Experiment
in flying

Another line in which the inventive genius of this prelate showed itself, and in which he was probably abetted by the king, was in one of the earliest attempts to construct an aeroplane on the principle of the gliders which developed towards the end of the 19th century. An account of his unsuccessful experiment to glide from the wall of Stirling Castle to the plain below, with Damian's quaint explanation of his failure, is given by Bishop Lesley:—

"This tyme thair wes ane Italiene with the King, quha wes maid Abbott of Tungland, and wes of curious ingyne. He causet the King believe that he, be multiplyng and utheris his inventions, wold make fine golde of uther mettall, quhilk science he callit the quintassence; quhairupon the King maid greit cost, bot all in vaine. This Abbott tuik in hand to flie with wingis, and to be in Fraunce befor the saidis ambassadouris; and to that effect he causet mak ane pair of wingis of fedderis, quhilkis beand fessinit apoun him, he flew of the castell wall of Striveling, bot shortlie he fell to the ground and brak his thee (*thigh*) bane; bot the wyt thairof he asscryvit to that thair was sum hen fedderis in the wingis, quhilk yarnit and covet the mydding and not the skyis."¹

After his recovery from the effects of this accident, Damian, on 8th September, 1508, was granted leave by the king to pass out of the realm and study where he pleased for the space of five years "without incurring any hurt, prejudice or skaith anent the abbay and place of Tungland." He was back again in Scotland before the king's death, and on 29th March, 1513, £20 was paid "to the Abbot of Tungland to pass to the myne of Crawford Moor." The king at this time had workmen busy upon this mine, from which gold had been obtained.

Search for
the quintes-
sence

Prior to the unfortunate attempt at flight, chemical laboratories were busy both at Stirling and Cambuskenneth, and numerous payments are recorded for the distillation of the quinta essencia, including wages, charges for utensils, coals and wood for the furnaces and other materials such as quicksilver, aqua vitæ, wine, lithargyrum auri, fine tin, brint silver, alum, salt, eggs, saltpetre, etc. The following entries between 1502 and 1508 from the treasurer's accounts show how busily these laboratories were engaged:—

1502. "Item, the vij day of Januar, be the Kingis command, to quinta essencia, xliij s."²

"Item (xx Februar), for v pund quyksilver for the furnes of quinta essencia, xx s."³

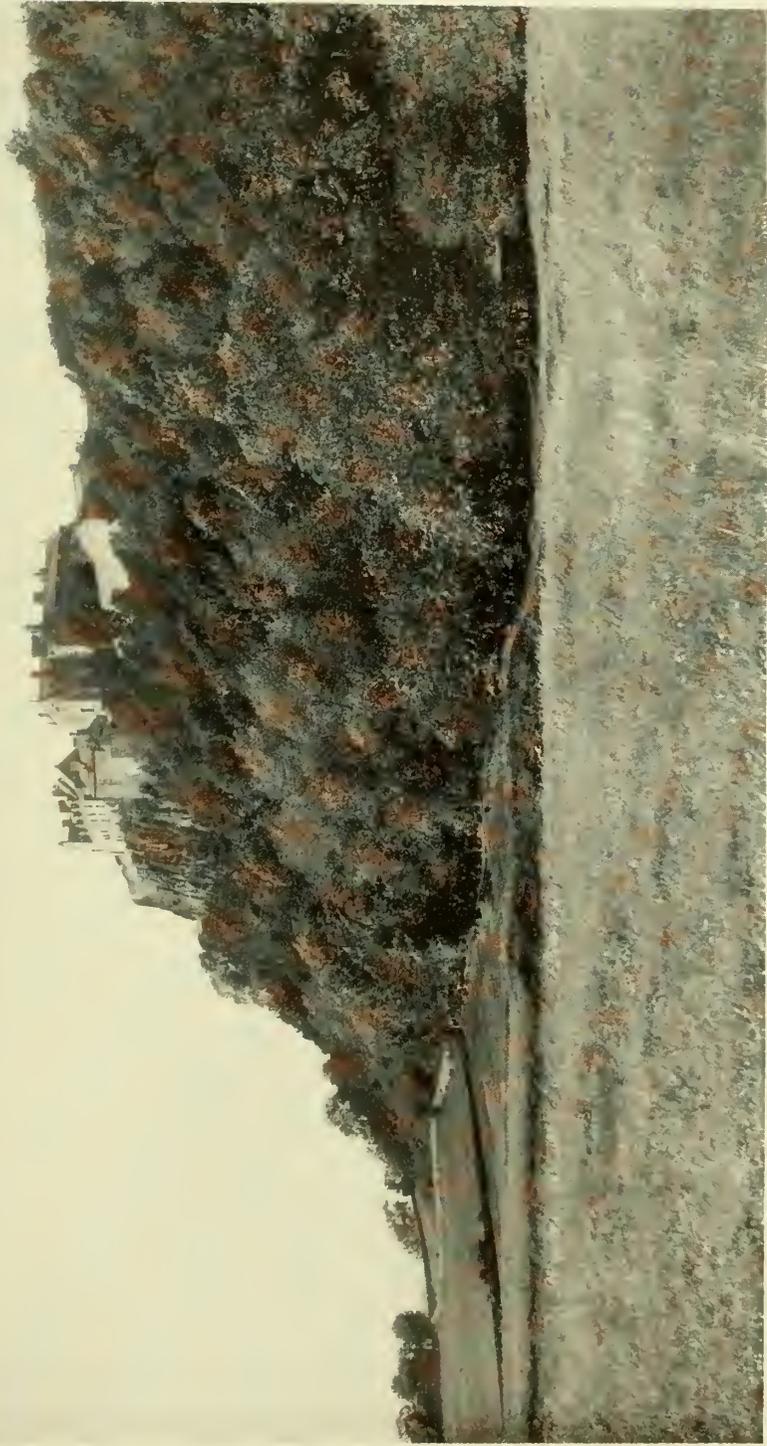
"Item, the xvj day of March, for xxv½ pund of quik silver, quhilk yeid to Strivelin to mak quinta essencia thare, of divers pricis, iiij li. vij s. x d."⁴

¹ Lesley: "The History of Scotland," Edinburgh, 1830, p. 76.

² "Accounts of the Lord High Treasurer of Scotland," Edinburgh, 1877, Vol. II., p. 357.

³ Op. cit., p. 359.

⁴ Op. cit., p. 362.



STIRLING CASTLE

where the alchemical researches of James IV. and John Damian were carried out, and from the wall of which Damian's flying experiment was made

"Item, for xij pund litargiri auri, ilk pund v s. summa iij li." ¹

"Item, for ix $\frac{1}{2}$ pund of fyne tyn, ilk pund xiiij d. ; summa xj s. i d." ²

"Item, to quinta essencia, be the Kingis command, and dischargyt xx unicornis to himself (Johne Auchlek, goldsmyth) and his fadir ; summa xviiij li." ³

1503. "Item, the penult day of March, to ane boy that kept the furnes fire, by the Kingis command, vj s. viij d." ⁴

"Item, the viij day of September, payit to Andro Aytoun that he laid down at divers tymes for pottis of lame to Maister Alexander Ogilvy for the furnesses in Strivelin xiiij s." ⁵

"Item, payit to Schir Andro Aytoun for xxv pund of allum to Maister Alexander Ogilvy, and quinta essencia, xiiij s. vij d." ⁶

"Item, to the said Andro he laid down for ane mortair of metall, weyand thre stane xj pund, for Maister Alexander Ogilvy and quinta essencia, iij li. ix s." ⁷

"Item, for colis to quinta essencia xj owkis eftir Pasch, iij li. xvij s." ⁸

"Item (xxiiij October) to Andro Aytoun, that he gaf for chercole to quinta essencia in Strivelin, iij s." ⁹

1507. "Item (xxix September), for aqua vite to the quinta essencia, vij s." ¹⁰

"Item (xxx September), to the boy that kepis the quinta essencia, iij s." ¹¹

"Item, the xxvj day of November, for certane irne graith to the quinta essencia, maid be the smyth of Cambuskinneth, xvij s." ¹²

"Item (xxij December), to the smyth of Cambuskinneth for making of ane irn kist for quinta essencia, xiiij s." ¹³

"Item (xxxj December), payit to Andro Aytoun quhilk he laid down for wod, colis, and Caldwellis wage for quinta essencia, v li. xix s. x d." ¹⁴

1507. "Item, the penult day of Januar, to Johne Mosman for stuf to the quinta essencia, x li. vj s." ¹⁵

"Item (vij Februar), payit to Andro Aytoun for lvij laid coles to quinta essencia sen Yule, ilk laid v d ; summa, xxiiij s. ix d." ¹⁶

"Item, for xviiij laid wod to the samyn, ix s." ¹⁷

"Item, to Caldwellis wage, xxviiij s." ¹⁸

"Item (xxiiij Februar), for iij pycharis to quinta essencia, v s." ¹⁹

"Item (v March), for ij pund sal aramomakle to quinta essencia, iij li. x s." ²⁰

"Item, for vj pund quyk silvir, xxiiij s." ²¹

"Item, for coles and wod for the quinta essencia in Strivelin, iij li. iij s. vj d." ²²

"Item, to Caldwell ane monethis wage, xxviiij s." ²³

¹ "Accounts of the Lord High Treasurer of Scotland," Edinburgh, 1877, Vol. II, p. 302.

² Op. cit., p. 362.

³ Op. cit., p. 362.

⁴ Op. cit., p. 364.

⁵ Op. cit., p. 393.

⁶ Op. cit., p. 393.

⁷ Op. cit., p. 393.

⁸ Op. cit., p. 393.

⁹ Op. cit., p. 402.

¹⁰ Op. cit., Vol. IV., p. 77.

¹¹ Op. cit., p. 77.

¹² Op. cit., p. 86.

¹³ Op. cit., p. 90.

¹⁴ Op. cit., p. 92.

¹⁵ Op. cit., p. 98.

¹⁶ Op. cit., p. 99.

¹⁷ Op. cit., p. 99.

¹⁸ Op. cit., p. 99.

¹⁹ Op. cit., p. 102.

²⁰ Op. cit., p. 104.

²¹ Op. cit., p. 104.

²² Op. cit., p. 104.

²³ Op. cit., p. 104.

With regard to the actual nature of the quintessence, it is evident that when wine had been distilled five times, the distillate must have been almost pure alcohol, and it is easy to suppose that King James and Damian may have believed that they were close to discovering a rejuvenating and life-prolonging principle in a material of which a very little could put them into a state of great "hignes of glorificatioum."¹

These experiments came to an abrupt end with the death of James upon the field of Flodden in September, 1513. His son James V. continued the mining operations which his father had commenced, and in 1526 gave a grant of the Scottish mines to a company of Germans who worked for many years laboriously in Clydesdale, and are supposed to have enriched themselves by extracting quantities of gold.

Alchemy was continued through the reign of King James VI. by such men as Sir George Erskine, of Innertiel, one of the senators of the College of Justice, whose alchemical books are preserved by the College of Physicians at Edinburgh, to which they were presented in 1707 by his grandson, the Earl of Cromarty;² John Napier of Merchiston, inventor of logarithms; Sir David Lindsay, first Earl of Balcarres; Patrick Ruthven, one of the Gowrie conspirators, who in later life practised as a physician in London, and whose commonplace book on alchemy is preserved in the University Library at Edinburgh; Alexander Seton, of Edinburgh; Patrick Scott, of Falkland; and others, who attained not merely to local, but even to European reputation. Like King James IV., they stimulated and kept alive in Scotland the spirit of inquiry into matters pertaining to chemical science, which later produced men like Black, Gregory and Graham, by whom important processes were discovered and useful drugs successfully extracted.

Later progress of alchemy

The interest taken by King James IV. in the treatment of the new disease "grantgore," and his early regulations for the prevention of plague, are mentioned in Chapter IX.

The Seal of Cause granted by the Town Council to the surgeons and barbers in the year 1505, was probably given at the instance of King James IV., and in any case it was confirmed by him in the following year. This document has important contemporary relations. Public dissections had been carried out in most of the universities in the 14th and 15th centuries (Venice from 1368), but this was the first enactment on the subject in Britain, preceding even the law of Henry VIII. in 1540, by which four bodies of executed criminals were granted to the surgeons and barbers of London. In the latter year, too, Henry VIII. granted to the surgeons and barbers of London privileges very similar to those granted by James IV. to the Edinburgh company in 1506.

Charter to the surgeons and barbers of Edinburgh

¹ *Proceedings of the Society of Antiquaries of Scotland*, 1875, Vol. XI., p. 183.

² *Op. cit.*, p. 561.

FROM M. N. W^{ch} A DUCHEMAN GAVE TO
THE B. OF BRISTOW.

R of pure gold 1 ounce w^{ch} yow sall drve into thinn plates. Yow sall blak heat this gold in a crucible, and also put 6 or 7 ounces of depured mercury into ane uther crucible, and when it begins to fume poure it suddainly upon your plates of gold and sture it all w^t a wooden stik, and w^{out} delay cast all into water.

Thairefter put your Amalgame into ane iron mortar and work it a long tyme w^t ane iron pestell. And so being wrocht w^t tuo or three ounces of your mercury put it thro^{ch} a finne Holand clothe. Then work that w^{ch} gois not thro^{ch} w^t als much moir mercury in the same mortar. And so put it thro^{ch} the Holand clothe. So continuing and working till all your Gold pass the Holand cloth.

And if yow be scarce of mercury, straine that w^{ch} hes passed the cloth thro^{ch} a lether, the mercury will pass, bot the gold will remaine in a little bollet.

Then put all your bollets (after all be passed the lether that can pass) and put thame in aquaforte. This will separate your gold from mercury and any uther metall.

Efter dulcifie your gold be distilled hoate water very often, till the saltsude of the aquaforte be gone.

And last tak ane quarter of ane ounce of flowres of sulphur, and mix weil w^t your calx of gold and lay it on a sherwell upon a fyre and the sulphur will tak away all the corrosive qualitie of the aqua forte and leave yow a fyne calx of gold spongius fyne as mell and deap brown colored.

From M. N. w^{ch} A Ducheman gave to
the B. of Bristow
R of pure gold 1 oz. with your full degree into
thinn plates. Yow sall blak heat this gold in a
crucible, and also put 6 or 7 ounces of depured
mercury into ane uther crucible, and when it
begins to fume poure it suddainly upon your
plates of gold and sture it all w^t a wooden
stik, and w^{out} delay cast all into water.
Thairefter put your Amalgame into ane iron mortar
and work it a long tyme w^t ane iron pestell. And
so being wrocht w^t tuo or three ounces of your
mercury put it thro^{ch} a finne Holand clothe. Then
work that w^{ch} gois not thro^{ch} w^t als much moir
mercury in the same mortar. And so put it thro^{ch}
the Holand clothe. So continuing and working till
all your Gold pass the Holand cloth.
And if you be scarce of mercury, strain that which has
passed the cloth thro^{ch} a leather, the mercury will
pass, but the gold will remaine in a little bollet.
Then put all your bollets (after all be passed the
lether that can pass) and put thame in aquaforte.
This will separate your gold from mercury and any
other metall.
Efter dulcifie your gold by distilled water very often,
till the saltsude of the aquaforte be gone.
And last tak ane quarter of ane ounce of
flowers of sulphur, and mix well w^t your calx of
gold and lay it on a sherwell upon a fyre, and the
sulphur will tak away all the corrosive qualitie
of the aqua forte and leave you a fyne calx of
gold spongius fyne as mell and deap brown colored.

The books available at this time for the study of anatomy were small compendiums, like those of Mondino of Bologna and Henri de Mondeville of Paris and Montpellier, and it is quite probable that copies of these had been brought to Scotland.

Vesalius, whose "De Fabrica Humani Corporis" (1543) is regarded as the commencement of anatomical renaissance, was not born till 1514, and the desire for anatomical study in Edinburgh is, therefore, independent, and is a proof of the high aspirations of 15th century medicine in Scotland.

In the larger Scottish towns, as in other countries, barbers practised minor surgery. As we have seen, there is a reference as early as 1451 to barbers in a Guild at Edinburgh. By the year 1505, when various craftsmen were applying to the Town Council for charters, the barbers, together with the surgeons in the city, united to apply to the Provost, Baillies and Council of the Burgh for recognition of the two callings joined in a single Guild.

It is evident from the application, in which two crafts are mentioned throughout, that along with barbers there existed at this time a superior calling of surgeons. The surgeons presumably were too few in number to form a Guild of their own, and thus united with the barbers, just as at Florence, in the previous century, the physicians had included in their Guild artists and literary men, who contributed much to the fame and standing of the Guild. The two crafts had for some time maintained an altar, dedicated to St. Mungo, in the church of St. Giles. This was supported by the entrance charges to the Guild and a weekly subscription of one penny.

The petition asked that their yearly election of a churchmaster and overman (in later years called the Deacon) should be recognised by the Town Council; that the Guild should have the sole right of practising the crafts of the surgeon and barber within the burgh, and that they should have the right to examine everyone presenting himself for entrance to the Guild in his knowledge of anatomy, complexion of the body, position of the veins, domination of the signs of the zodiac and ability to read and write. They also petitioned for the body of a criminal to anatomise once in the year.

The entrance fee was to be £5, together with a dinner by the candidate to the already-existing masters of the craft. The Guild was also to have a chaplain to perform daily services before their altar and an officer to collect the dues and precede them in processions.

Another privilege craved was that the members of the crafts should have the sole right to manufacture and sell aqua vitæ within the burgh.¹ These petitions were granted by the Town Council at Edinburgh on the 1st of July, 1505, and were ratified in the following year by King James IV.

¹ This was not so great a privilege in days when the national drink of Scotland was "aill," as it might now appear, but if the monopoly to make and sell whisky in Edinburgh had not been allowed to lapse, the Royal College of Surgeons would to-day be one of the wealthiest corporations in the country.

this burgh at all tymes, as vther nichtbouris and craftis dois within the samyn, we desyre at your lordship and wisdomes till [to] geve and grant to ws and oure successouris thir reulis statutis and privilegis vndir written, quhilkis [which] ar consonant to resoun, honour till oure Souerane Lord and all his lieges, proffeit and lowabill to this gude tovne : In the first, that we micht have yeirlic chosin amangis ws ane kirkmaister and ourisman [overman] to quhome the hail brether of the craftis foirsaid sall obey for thatt yeir : Item, that na maner of persoun occupie nor vse ony poyntis of our saidis craftis of Surregenie or Barbour craft within this burgh bott gif [unless] he be first frieman and burges of the saymn, and thatt he be worthy and expert in all the poyntis belangand the saidis craftis diligentlie and avysitlie examinitt and admittit be the maisteris of the said craft for the honorabill seruying of oure Souerane Lord his liegis and nychtbouris of this burgh, and als [also] that euerie man that is to be maid freman and maister amangis ws be examit and previt in thir poyntis following, thatt is to say, that he knaw anotamell [anatomy], nature and complexion of eury member humanis bodie, and inlykewayes he knaw all the vaynis of the samyn, thatt he may mak flewbothomell [phlebotomy] in dew tyme, and als thatt he knaw in quhilk [which] member the signe hes domination for the tyme, for eury man aucht to knaw the nature and substance of eury thing thatt he werkis, or ellis he is negligent ; and that we may have anis [once] in the yeir ane condampnit man efter he be deid to mak antomell of, quhairthraw we may haif experience, ilk ane to instrict vtheris, and we sall do suffrage for the soule ; and that na barbour, maister nor seruand, within this burgh hantt [practise] vse nor exercee the craft of Surregenie without he be expert and knaw perfytelie the thingis abouewritten : and quhat person sal happin to be admittit frieman or maisteris to the saidis craftis, or occupeis ony poynt of the samyn, sall pay at his entry for his vpsett [entrance fee] fyve pundis vsuall money of this realme of Scotland to the reparatioun and vphalding of oure said altar of Sanct Mongow for deuynne [divine] seruice to be done thairatt, with ane dennar to the maisteris of the saidis craftis at his admissioun and entres amangis ws ; exceptand that eury frieman maister of the saidis craftis ane of his lawful gottin sonnys to be frie of ony money payment, except the dennar to be maid to the maisteris efter he be exeminit and admitted be thame as said is : Item, that na maisteris of the said craft sall tak ane prenteis or feit [hired] man in tyme cuming to vse the Surregeane craft without he can baithe wryte and reid, and the said maister of ony of the saidis craftis that takis ane prenteis sall pay at his entres to the reparatioun of the said alter twenty schillingis ; and that na maister of the said craft resset [steal away] nor ressave [receive] ane vther maisteris prenteis or seruand quhill [till] the ische [end] of his termes be run, and quha that dois in the contrair thairof, as offt as he failyies, sall pay xx s. to the reparatioun of the said alter but [without] fauouris. Item, eury maister that is resauit frieman to the said craft sall pay his oulkie penny with the priestis meit as he sall happen to cum about, and eury seruand that is feitt [hired] man to the maisteris of the said craft sall pay ilk oulk [week] ane half-peny to the said alter and reparatioun thairof ; and that we haif powar to cheise [choose] ane chaiplane till do devyne seruice daylie at our said alter at all tymes quhen the samyn sall vaik [be vacant], and till cheis ane officiar till pas with ws for the ingathering of oure quarter payment and oulkie pennies, and to pass befor ws on Corpus Christy day and the octauis thairof, and all vther generall processionis and gatheringis, sielike as vtheris craftis hes within this burgh ; and that ane of the maisteris of the foirsaid craftis, with the chaiplane and officiar of the samyn, pas at all tymes neidfull lift [collect] and rais the saidis quarter paymentis fra eury persoun that aw the samyn, and gif ony dissobeyis that we may poynd [seize] and distrenye [distrain] thairfoir all tymes haifand ane officiar of the tovne with us : Item, that na man nor freman of the said craft purches ony lordschip incontrair [contrary to] the statutis and rewlis aboue written, in hindering or skaithing [damaging] of the craftis foirsaidis or commoun weill thairof, vnder the payne of tynsall [loss] of thair friedomes. Item, that all the maisteris friemen and brether of the said craft reddelic obey and cum to thair kirkmaister at

Surgeons and barbers to elect an overman

Examination

Anatomical instruction

Entry fee

Apprentices to write and read

Religious duties

Meetings

Monopoly of
aqua vitæ

comptis [*accounts*], or till avyse for ony thing concernyng the commoun weill of the saidis craftis, and quha thatt disobeyis sall pay xx s. to the reparatioun of the said altar; and that na persoun man nor woman within this burgh mak nor sell ony aquavite within the samyn except the saidis maisteris brether and friemen of the saidis craftis vnder the pane of escheit of the samyn but faouris. Beseking heirfoir your lordschippis and wisdomes at the reuerence of God that ye will avise with thir oure sempill desyris statutis rewlis and privilegis abouewritten, and grant ws the samyn ratefeit and appreuit be yow vnder your seill of cause, and with the grace of God we sall do sic seruice and plesour to the Kingis grace and gude tovne that ye salbe contentit thairof, and your deluyuerance heirintill humblie I beseik.

“The quhilk bill of supplicatioun with the reullis statutis and privilegis contenit thairentill being red befor ws in jugement, and we thairwith beand ryplie [*fully*] and distinctlie avysit, thinkis the samyn consonant to resoun and na hurt to our Souerane Lordis Hienes, ws, nor nane vtheris his liegis thairintill, and thairfoir we consent and grantis the samyn to the foirsaidis craftis of Surregenry and Barbouris and to thair successouris, and in sa far as we may or hes powar, confirmis ratefeis and apprevis the saidis statutis reullis and privilegis in all poyntis and articlis contenit in the supplicatioun abouewritten; and to all and syndrie quhome it efferis [*concerns*] or may effere we mak it knawin be thir our lettres; and for the mair verificatioun and strenth of the samyn we haif to hungin [*appended*] our commoun seill of cause, at Edinburgh, the first day of the moneth of July the yeir of God ane thousand fyve hundreth and fyve yeris.”¹

The Seal of Cause was confirmed by James IV. under the Privy Seal at Edinburgh on the 13th October, 1506.

¹ “Extracts from the Records of the Burgh of Edinburgh, 1403-1528,” pp. 101-104.

CHAPTER VIII

PRACTICE AT EDINBURGH AND ELSEWHERE IN THE SIXTEENTH CENTURY

IN addition to the surgeons who practised in the burghs, there were at this time royal surgeons who had country districts placed under their care, and who were paid by lands or fees from the Crown revenues much in the same way as parish doctors now receive allowances from the local authorities. Thus, Henry Railston had an annual fee of six merks from the rents of Kere Lawmond and Little and Meikle Lupas in Bute during his life, for the surgical art which he rendered at the instance of the king and queen. Another royal surgeon, John Watson, received £21 1s. 6d. annually, though this was later reduced to £14 1s. At a slightly later date, Robert Kynnaird, the king's surgeon, received £20 annually, which was paid half by the treasurer and half by the comptroller, and John Murray, the king's barber (barbitonsor) received £10.¹

District
surgeons
of 16th
century

Other surgeons of the reigns of James IV. and James V. were the following: Thomas Leich received a fee paid from rents in the Island of Bute for a number of years, and, in 1496, by grace of the king, received an extra fee of one chaldar of barley (in modern weight one ton).² William Maw received £10 from the lands of Thomestone.³ Dr. Arbuthnot was a physician to James V., who, in addition to a salary for himself, received an allowance for his horses.⁴ George Leich had a grant for life from the lands of Kylvier and Artulloch up to 1555.⁵ Master Duncan May, surgeon, had a fee of £40.⁶ Fergus Aldow, physician, and Nigel McMorquhar, physician, also had grants from James V.⁷ James Watson was a surgeon to James V., who received a salary of £20 from 1538 to 1542.⁸

For diseases requiring great skill, it appears that resort was made at this time to Paris. Thus Patrick Panther, the king's secretary, went there when ill and died of fever; and Henry Sinclair, Bishop of Ross, went to Paris for a surgical operation.⁹ The fee paid to a Scottish surgeon on one occasion is mentioned as 32 shillings.¹⁰

¹ "Exchequer Rolls of Scotland," Vol. XIV., pp. 81, 466 and 467.

² Op. cit., Vol. X., pp. 549 and 550 etc.

³ Op. cit., p. 202.

⁴ Op. cit., Vol. XV., p. 389.

⁵ Op. cit., p. 13, etc.

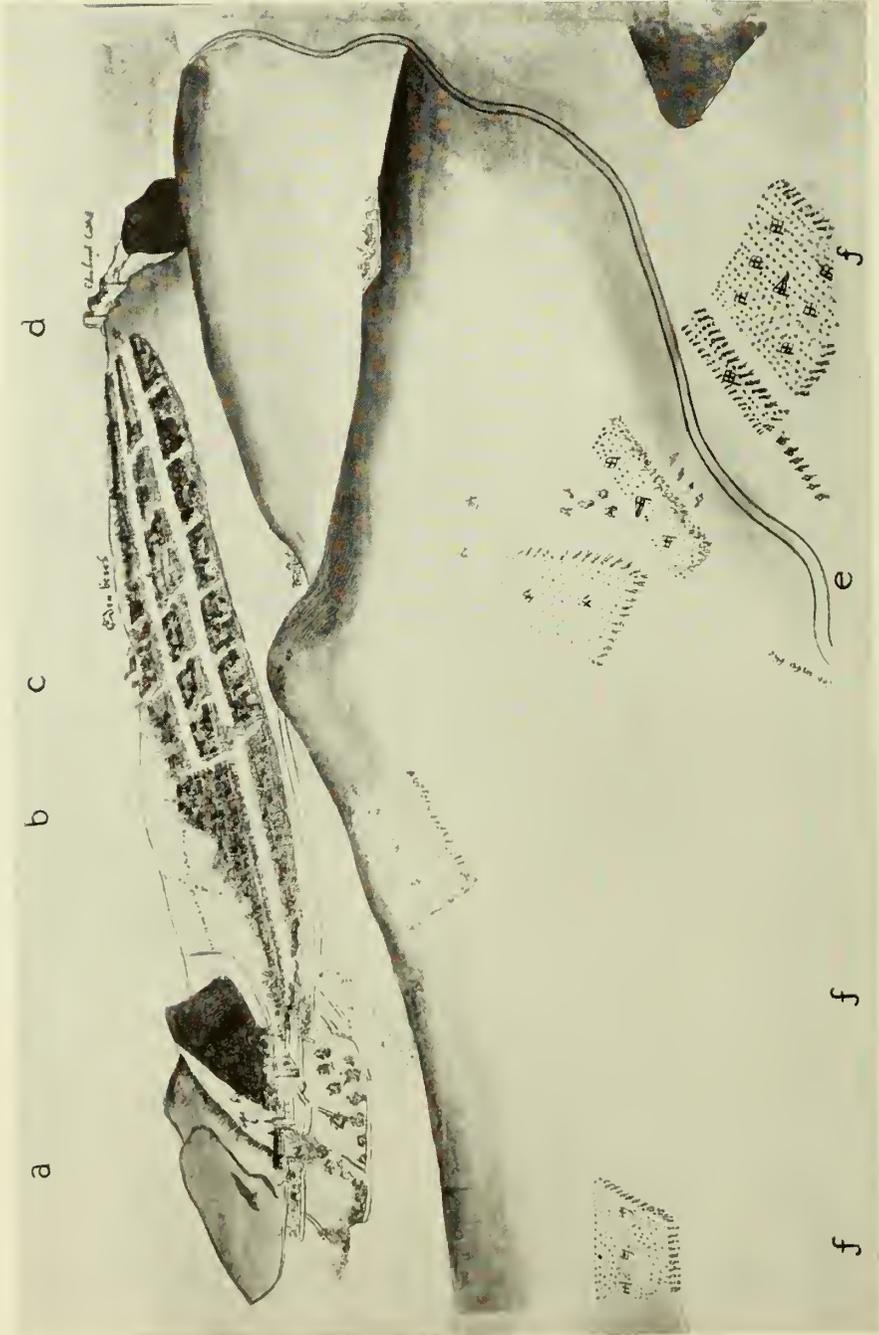
⁶ Op. cit., p. 141, etc.

⁷ Op. cit., Vol. XVII., pp. 555 and 549.

⁸ Op. cit., p. 59, etc.

⁹ Op. cit., Vol. XIV., Pref. p. cxvi.

¹⁰ Op. cit., p. 362.



EDINBURGH IN 1544, FROM NORTH-EAST OF CALTON HILL
(Sketch made by an engineer with the English Army, for Henry VIII.)

Showing the attack of the English troops on the town prior to the burning of the city
 Under a—Arthur's Seat and Holyrood Palace. b. Monastery of the Blackfriars. c. Church and Hospital of Kirk o' Field. large group of buildings on the skyline. d. Edinburgh

Sir David Lyndsay, of the Mount, in the reign of James V., has an amusing poem regarding a jousting between James Watson and Jhone Barbour, servitouris to King James V., which is said to have taken place before the king and queen, at St. Andrews, on a Whit Monday. It is possible that professional rivalry may have induced these two representatives of the medical profession of the day to engage in combat before the court. In any case, Lyndsay turns their strife into a ridiculous affair :—

Lampoon
on royal
surgeons

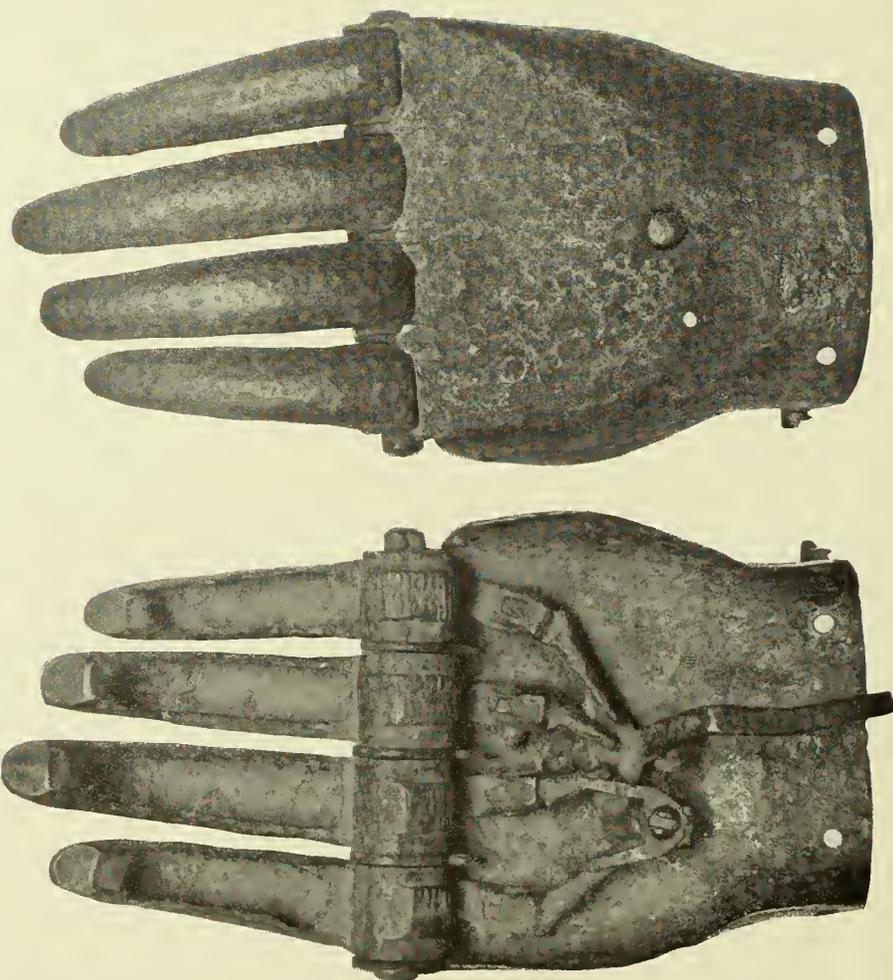
“ The ane of thame was gentill James Watsoun,
And Jhone Barbour, the uther campioun ;
Unto the King thay wer familiaris,
And of his chalmer boith cubicularis :
James was ane man of greit intelligence,
Ane medicinar ful of experience ;
And Jhone Barbour, he was ane nobill leche,
Crukrit earlingis, he wald gar thame get speche.
From tyme thay enterit war into the feild,
Full womanlie thay weildit speir and scheid,
And wichtlie waiffit in the wynd thair heillis,
Hobland lyke cadgeris rydand on thair creillis ;
But ather ran at uther with sic haist,
That they could never thair speir get in the reist ;
Quhen gentill James trowit best with Jhone to meit,
His speir did fald among his horsis feit .
I am richt sure, gude James had bene undone,
War nocht that Jhone his marke tuke be the Mone.”

At the first onslaught with lances, James would have been struck down if John through fierceness had not happened to faint, and, at the same time, John would have suffered severely had not James unfortunately broken his lance among the horses' feet. After the unsuccessful charge with lances, they drew their swords, but each missed his blow at the other, and thereafter they took to boxing-gloves and “dang at utheris facis.” Finally, they gave up for weariness without shedding blood. Perhaps in this poem a sly reference may be traced to John Watson, who was one of the royal surgeons, and Thomas Leiche, a well-known surgeon of the time.¹

The surgeons and barbers of Edinburgh had come into prominence in the year 1505, when, along with various other Guilds, they were incorporated under the Seal of Cause from the Town Council, ratified next year by the king. During the following century there are numerous references in the Town Council minutes and other Scottish records to their activities. That the surgeons and barbers were enterprising and patriotic is evidenced by the fact that when an English invasion was threatened in 1558, and the crafts of the burgh were convened in the Tolbooth to provide volunteers for the protection of the town against “our auld inemyes of England,” 27 members of the Guild of Surgeons and Barbers volunteered for this duty as part of a force of 717 men provided by the various crafts.

Surgeons of
Edinburgh

¹ “Sir David Lyndsay's Works”: Edit. by Laing, Edinburgh, 1879, Vol. I, p. 125.



IRON HAND OF CLEPHANE

(Reproduced by courtesy of the Rt. Hon. the Marquess of Northampton)

Their names were as follows : " Jhone Wawchthet, and Edward Wawghthet, his servand (*i.e.*, *apprentice*) ; David Robertsoun, and Thomas Kawpe, servand ; Jhone Weddel ; Patrick Mertene ; Alexander Bruce ; Jhone Libertoun ; Robert Henrysoun, Andro Wyntoun and Gilbert Prymros, his servandis ; Nowye Bruschet, and Thomas Boyes, his servand ; James Lindsay ; Archibald Maw, and Jhone Scot, servand ; Alexander Percy, Thomas Blak, his servand ; Niniane Maw, Jhone Chalmer, his servand ; George Campbell ; Maister Armle, William Gray, his servand ; Maister Bapteist, Jhone Pectarne, his servand ; Pate Hardye, Walter Hardye, his sone." ¹

Military
surgeons

There is a note in the Register of the Privy Seal of Scotland, under the date 1542, for disbursements to Anthone Brisset, on account of services to Queen Mary of Guise, and to four surgeons who had apparently taken part in military operations on the borders in that year. This is the first reference to military surgeons in Scotland :—

Item, gevin to Anthone Brisset, Surrurgeane, for laubouris done be him to ye Quenis grace, at this tyme alanerly. xx li.

Item, to George Leche, William Quhite, George Fothringham and Daud Robertsoune, Surrurgeanis, passand to ye Bordouris for curing of all personis yat hapnit to be hurt be Inglis menne xij li.²

The family of Clephane of Carslogie, near Cupar, possessed an iron hand without a thumb, the fingers of which move at the knuckles. It is attached to three flat bars, which were fastened by means of a hoop to the arm just below the elbow. Tradition says that it belonged to a laird of Carslogie, who received it from a king of Scotland, in consequence of having lost his hand in the service of his country. It is apparently an example of the work of a 16th century Scottish armourer.

Iron Hand
of Clephane

In 1557, John Wauchlott, who is described as officer and chirurgeane, received £3 for curing the leg of James Henderson, injured in a fight with a thief. It appears, therefore, that Wauchlott must have been in the service of the magistracy.³ In 1563, Robert Hendersoun, cherurgeane, appears to have been in the service of the town, because a minute of the Council speaks of his great labours and expenses at their command on divers persons hurt within the town. Hendersoun's most notable exploit was said to have been the raising of a dead woman from the grave, when she had lain there two days after having been strangled. He had also dressed the stumps of two false notaries whose hands had been struck off, and he had successfully treated a man and a woman wounded through the body by the sword of a Frenchman. For these surgical exploits he was voted the sum of 20 merks.⁴

¹ Gairdner : "List of Fellows of the Royal College of Surgeons of Edinburgh, 1581-1873." Edinburgh, 1874, pp. 3 and 4.

² Pitcairn : "Criminal Trials in Scotland," Vol. I., Part I., p. 325.

³ "Extracts from the Records of the Burgh of Edinburgh, 1557-1571," p. 16.

⁴ *Op. cit.*, pp. 165 and 166.

The monopoly granted to the surgeons and barbers of making aqua vitæ seems to have been gradually abandoned by them. On 20th March, 1557, Besse Campbell was ordered to "desist and ceis fra ony forther making of aquevite within this burgh in tyme cummyng," or from selling it except on the market day, "conform to the priuilege grantit to the barbouris vnder the seill of caus, without scho be admittit be tham thairto." It would seem, from the latter part of this judgment, as though the surgeons and barbers had been in the habit of leasing or granting to persons outside the craft the privilege of making and selling aqua vitæ. The complete abandonment of the privilege was therefore probably effected gradually.¹

Exemptions
to surgeons

Mary, Queen of Scots, some two months before her abdication, in 1567, granted an important concession to the surgeons by which they were to be exempted from bearing arms and sitting upon Assizes, so that they might be the more able at all times to devote their services to the succour of the lieges.

LETTER UNDER THE PRIVY SEAL EXEMPTING SURGEONS FROM BEARING ARMOUR OR
PASSING IN BATTLE, ETC.

11TH MAY, 1567.

Ane Lettre maid makand mentioun That oure Souerane Lady Vnderstanding be suir informatioun That the chyrurgianis of all realmis ar for the weill of the legis of the samin exemit fra bearing of armour or passing in battell in all weiris wappinschawingis raidis gaddingis assembleis and armeis And als fra all passing vpoun assyissis or inqueistis in actionis criminall or ciuile except safar as appertenis to the jugement of thair awin craft To the effect that thai may be reddey to serve the remanent liegis with thair occupatioun as tyme sall require And hir hienes considering That cunningg men of the occupatioun and craft of chyrurgianrie ar als necessar to be within this realme as in vthir pairtis And willing to gratifie the chyrurgianis duelland within the burrowis of this realme And to gif thame and vthiris thair posteritie of thair occupatioun the gretar occasioun to studie the perfectioun of the said craft and occupatioun to the vttermost of thair ingynis Thairfore and for diuers vthiris ressonabill caussis and considerationis moving hir grace Gevand and grantand licence To all and sindrie chyrurgianis inhabitantis of burrowis of this realme now present and thair posteritie being for the tyme chirurgianis quhilk are habill and qualifijt personis and eftir examinatioun before the Dekin and brethir of that occupatioun within the burgh of Edinburght and of a Doctour of Medicine gif he may be present salbe fundin abill and qualifijt to vse and exerce the said craft and no vthiris That thai sall nocht beir armour nor pas in battell in ony oistis raidis gaddingis assembleis wappinschawingis or weiris to be maid be hir grace or hir successouris thair lieutenantis or wairdanis be burght sey or land within this hir hienes realme or outwith the samyn And als wa fra all compeirance and passing vpoun ony inqueistis or assyissis in actionis criminall or ciuile in iustice airis iustice courtis schiref courtis burrow courtis or vtheris for serving of brevis apprising of landis or ony vthir maner of actionis quhatsumeuir Except safar as concernis the ingeniens and sicht of thair said craft allanerlie Exemand and Dischargeand thame thairfra in tyme cuming And will and grantis that the chirurgianis now present and thair posteritie of that occupatioun nor nane of thame salbe callit nor accusit thairfore etc. Providing alwayis That thai beir chairgis in payment of stent within burght as nychtbouris dois in all tyme cuming And als that thai be present with armyis reddie to do hair cuir and dewitie to all sic personis as salhaue mister thair of etc. At Edinburght the xj day of Maij the zeir of God jmwv lxvij zeiris.

Per Signaturam.²

¹ "Extracts from the Records of the Burgh of Edinburgh, 1528-1557," p. 262.

² Registrum Secreti Sigilli, XXVI., p. 47.

Medico-legal
cases and
certificates

There are various records of surgeons being consulted in medico-legal cases, and furnishing reports to the Town Council or to the judges. The following is a good example of the form taken by a medico-legal report, dated 27th June, 1569:—

“Comperit alsua in jugement, in presence of the said Justice-depute, Nowye Buyssat, dekyn of Scherurgianis, and producit this writting following, quhilk bayth the parteis foirsaidis desyrit to be insert and registrat in the buikis of Adiornale; quhairof the tennour followis:—

TESTIMONIAL OF THE CHERURGIANIS

“Apud Edinburt. xxvij^o. die mensis Junij, Anno Domini millesimo quingentesimo sexagesimo nono. The quhilk day, at sindry tymes befor, at ye queist and desyre of my Lord Justice Clerk, wes presentit befor me Nowye Buyssatt dekyn, Robert Henrysoune, Patrik Hardy, and Alex. Tuedye, cherurgeanis and burgessis of Edinburgh, my breder, ane callit Johnne Farer, quha wes hurte vpoun the left arme, on the elbok, on the arme beneth, and on the hand; to have our jugementis, quhidder that the said Johnne suld be mutulat or no of the saidis hurtis and woundis than being hail: Eftir lang consultatioune and ernist advyement, we fand the said Johnne nather to be mutulat nor impotent of his arme nor hand; bot that it wald be daylie better, gif he wald make laubouris vpoune it: And this we testefie be this our hand wrytis and subscriptiounne to all and sindry to quhome it efferis, day, zeir and place foirsaidis.

“Nowy Byssat, Dekin of the Cherurgeanis.

Robert Henrysoune, wt. my hand.

Alex. Tuedy, wt. my hand.

Patk. Hardy, wt. my hand.”¹

By 1563, the surgeons and barbers seem to have been taking means to stop unauthorised people from practising their craft, for in this year the Provost and Council forbade four men and a woman to indulge in “occupeing or vsing of cherurgeanrie or barbour craft” until they should be admitted and made free of the craft.²

Expert
witnesses

In addition to furnishing certificates to the courts, the surgeons were sometimes called before the Town Council to give evidence, as in March, 1580, when Jhone Lowsoun, chirurgian, appeared before the Provost and Baillies, and, being sworn, gave evidence that Nicoll Haistie, cordiner, was in no danger of his life from a wound given him by Thomas Crawford, who therefore was set at liberty upon caution.³

At the same court, seven surgeons appeared, viz., Robert Henrysoun, Howie Brussat, Henry Blyth, Gilbert Primrose, James Lyndsay, James Craig and Henry Lumisdaill, who gave evidence that they had on various occasions examined Robert Asbowane, who had been wounded one week before by

¹ Pitcairn: “Criminal Trials in Scotland,” Vol. I., Part II., p. 7.

² “Extracts from the Records of the Burgh of Edinburgh, 1557-1571,” p. 155.

³ Op. cit., 1573-1589, p. 152.

James Douglas, with his servants and accomplices. As they testified that the said Robert Asbowane was in no danger of his life or of mutilation, the prisoners were set at liberty with a fine of 5000 merks. Four of these surgeons had already appeared two days previously and reported that "they as yit culd geve na resolute ansuer towart the hurting of Robert Asbowane be James Douglas and his complices, bot that he is in danger quhill forther tryell."¹

It may be assumed, therefore, that Gilbert Primrose, James Lyndsay and James Craig were regarded as persons of greater weight in the profession, seeing that they enabled the other four within two days to come to a definite decision in this serious case. All three were later Deacons of the craft.

In the same year, Henry Lumisdail is noted as having given a certificate that a servant to the Earl of Argyle was in no danger from a wound given him by Jhone Small, who was therefore set at liberty.² In 1581, the same three seniors, Gilbert Primrose, James Craig and James Lyndsay, gave evidence that they had examined the wound of Howsteane Braikinrig, a buttermen, who had been wounded by Rychert Miller, and, as they declared that Braikinrig was in no danger of his life, Miller was set free.³ Similarly, in 1583, Lyndsay, Lumisdail, Blyth and Craig certified that James Marioribankis was in no danger to life from a wound in the hand and arm given him by William Blythman, flesher, and his accomplices, and cautiously added "bot gif he was mutilat culd nocht swa suddanelie declair the sam."⁴

Robert Henrysoun has been mentioned as having been employed several times by the town in medico-legal cases. In June, 1580, a supplication was made on the part of Thomas Morame, town's officer, who had been hurt in the execution of his office "be sum wicket persounis as yitt vnknawin," because his surgeons, doubting of payment, "ar become slak in thair cure." He had been thrust through the body and was troubled with inward bleeding. The Baillies and Council therefore ordained their treasurer to pay Robert Henrysoun and James Lyndsay, chirurgeanes, 20 pounds for Morame's cure, and to pay Adame Diksoun, apothecare, the sum of 50 shillings for the drugs supplied by him.⁵

The surgeons and barbers frequently had to contend with persons invading their craft, and, in 1575, the Provost and Baillies had issued a decree forbidding apothecaries and others who did not belong to the Surgeons' Guild to exercise a part of their craft. This had been duly intimated by the bellman of the burgh

Invasions of
the surgeons'
privileges

¹ "Extracts from the Records of the Burgh of Edinburgh, 1573-89," p. 153.

² *Op. cit.*, p. 162.

³ *Op. cit.*, pp. 218 and 219.

⁴ *Op. cit.*, pp. 286 and 287.

⁵ *Op. cit.*, pp. 165 and 166.

to Alexander Barclay and Robert Craig, apothecaries, and others. On 12th April, 1587, the Deacon of the surgeons' craft, James Craig, complained to the Town Council that Archbald Mwdie, an apothecary, had been practising surgery, and in particular he had been "curing and pansing of Mathow Weiche of ane vlcer in his fute" for three weeks past, and daily and hourly applying thereto various local remedies. For this, Archbald Mwdie was fined 40 shillings and forbidden in future to exercise any point of the craft of surgery, under the pain of a similar fine.¹ On 27th June, 1589, however, Baillie Thomas Fyshear, who was not a surgeon, received 20 shillings from the Council for "mending ane Spayngyart's heid."² In the case of a Baillie, the Surgeons' Guild probably thought it better not to prosecute.

It must have been somewhat of a blow to the surgeons in Edinburgh when, on 5th February, 1589, Phillop Hislop, one of the regents of the Town's College, who suffered from a malady of the eye and feared he was to lose it, obtained leave of absence from the Town Council to proceed to London, where he was "in howpe to be curet thair of."³

John
Chisholm's
rupture
operation

A distinguished surgeon of this period was John Chisholm, doctor of medicine, and surgeon to King James VI., who is believed to have been the operator who preserved the life of the Earl of Morton when he was suffering from strangulated hernia, although the Earl was beheaded nine years later, the first victim of "The Maiden," an instrument which he had invented: "November, 1572, James, erle of Mortoun, regent, lay deidle seik of rumburssanes (*rupture*) and war nocht he was cuttit he haid lost the lyff."⁴

Gilbert
Primrose

The most noteworthy of the surgeons about this time was Gilbert Primrose, who served an apprenticeship to Robert Henrysoun and accompanied him in the military expedition of 1558. He was Deacon of the Incorporation in 1581-82 and again in 1602, and, during his earlier occupancy of the chair, the craft attained the premier position among the Edinburgh trade guilds. He was a friend of Peter Lowe, founder of the Faculty of Physicians and Surgeons in Glasgow, who dedicated his treatise on Chirurgery to Gilbert Primrose and to James Harvie, another Edinburgh surgeon who had been an apprentice to Primrose and afterwards became chief surgeon to the queen. Primrose became sergeant-surgeon to King James VI., accompanied the court to London and died at Westminster



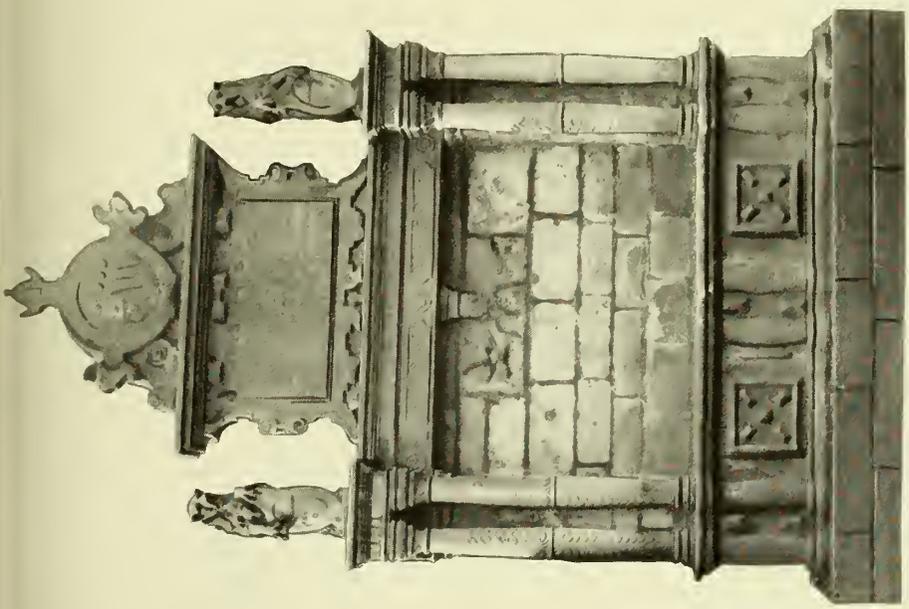
MORTAR OF GILBERT PRIMROSE
(Original in Museum of Royal College of Surgeons,
Edinburgh)

¹ "Extracts from the Records of the Burgh of Ediuburgh, 1573-1589," pp. 489 and 490.

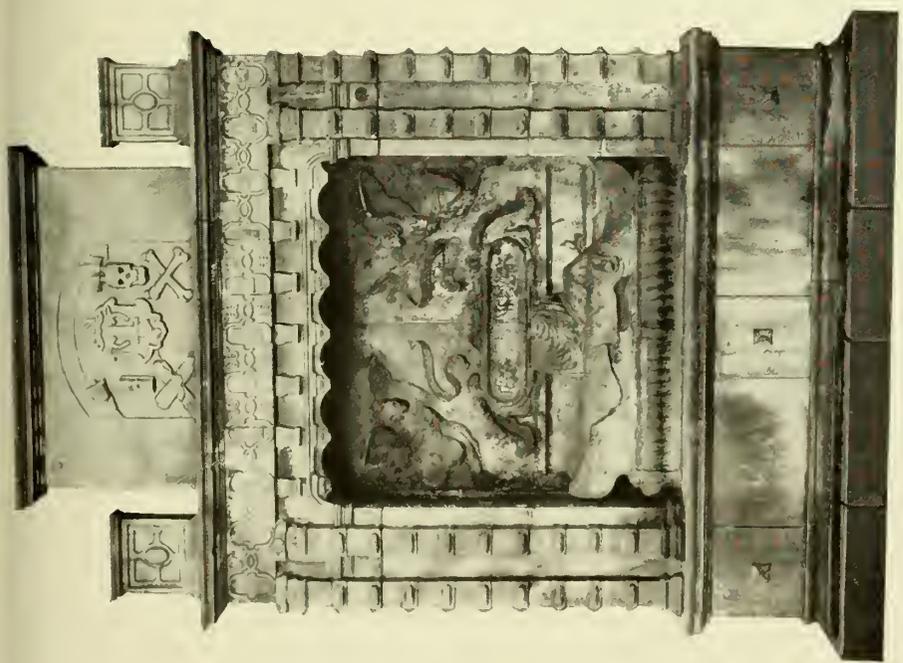
² *Op. cit.*, p. 546.

³ *Op. cit.*, p. 536.

⁴ "Diurnal of Occurrents," p. 321.



TOMB OF GILBERT PRIMROSE
IN GREYFRIARS CHURCHYARD, EDINBURGH



TOMB OF JOHN NAYSMYTH
IN GREYFRIARS CHURCHYARD, EDINBURGH

on 8th April, 1616. He was interred in Greyfriars' Churchyard at Edinburgh, where his tombstone bore a Latin epitaph to the following effect :—

“ To Gilbert Primrose, chief chirurgon to James and Anne, king and queen of Great Britain, France and Ireland, his heirs erected this monument. He lived happily 80 years. To the end of his life he was chief chirurgon to the king, and died adorned with testimonies of public sorrow, from prince and people, in the year of our Lord 1616, the 8 day of April.

“ Thus he died full of years and honour. While I lived I willed; my will, Christ, was Thine; so neither life nor death was bitter to me.”

John
Naysmyth

Another surgeon deserving mention is John Naysmyth, surgeon to King James VI. He was the younger son of Michael Næsmyth, Chamberlain to John Hamilton, Archbishop of St. Andrews, and Elizabeth, daughter of John Baird of Posso. John Naysmyth appears to have received his early education at St. Mary's College, St. Andrews, and he served an apprenticeship to Gilbert Primrose. He rendered an important service to the imprisoned Mary Queen of Scots, for, in 1575, he went to England as a member of the retinue of Lord Seton, ostensibly on an embassy to Queen Elizabeth, but in reality entrusted with

the perilous task of delivering to Queen Mary certain letters from the Regent. These were successfully delivered, but were discovered shortly afterwards, a fact which necessitated the speedy return of Naysmyth to Scotland. Partly, no doubt, through his exploit, he rose to high favour with King James VI.



MEMBER OF THE SCOTS GUARDS OF THE KING OF
FRANCE IN THE TIME OF JOHN NAYSMYTH

(After Forbes-Leith)

For a time, however, his fortunes declined, as he was involved in the plot against the king originated by Francis, Earl of Bothwell, and the king, who was incensed against him, was only kept from hanging him by the intercession of his queen, Anne of Denmark, who apparently had a great liking for the young surgeon. Naysmyth retired to France for some years, and there became chief surgeon to the Scots Guards of the King of France.¹

Surgeon to
Scots Guards
in France

In 1599, he returned to Scotland and was speedily restored to the royal favour. Indeed, he was a companion of King James on the hunt at Falkland when James was enticed to Gowrie House in 1600.² On 26th March, 1600, he married Helen MacMath, daughter of one of the most opulent Edinburgh citizens of that time, and on the removal of the court to London in 1603, Naysmyth accompanied the king, and was made Royal Herbalist for life. He died in London on 16th September, 1613, in the 57th year of his age and, by his own wish, his body was removed to Edinburgh and interred in Greyfriars Churchyard, where a handsome monument still marks his resting-place. A Latin inscription, which is now almost completely obliterated, but which has been translated, runs as follows :—³

“ Here lies John Nasmyth, of the family of Posso, an honourable family of Tweeddale, a citizen of Edinburgh, chief surgeon to his most Serene Majesty, and to the King of France’s troop of guards from Scotland—having excellently performed all the duties of a godly life ; who dying at London, to the grief of both nations, in the exercise of office with his Majesty, ordered his body to be conveyed hither (*such was his love to his country*), to be buried in this dormitory ; acquitting himself to his King, his country, and his friends to the utmost of his power and duty. He died in the 57th year of his age, the 16th September, 1613. Why is it grievous to return whence you came ? ”

The first specialist in surgery at Edinburgh of whom there is a record was apparently trained in France, for, in 1595, the surgeons complained against M. Awin, a French surgeon, for practising the art of surgery in Edinburgh without belonging to the Guild. The Town Council fined him 20 pounds and forbade him under pain of imprisonment to practise surgery except certain special branches, viz., cutting for the stone, curing of ruptures, couching of cataracts, curing the pestilence, and distempers of women occasioned by childbirth.⁴

Surgical
specialist

James Henrysoun (a younger contemporary of Robert Henrysoun), who had been busy as a kind of medical officer of health during the epidemics of plague, was apparently employed by the Town Council, after the disappearance of the plague, as a regular officer to treat the poor of the town, for, in 1589, there is a minute that he is to be paid the “ sown of nyne pund fourty penneis, in compleitt payment of all drogs, implasteris and mendicaments furnist be him in curing of

Town
medical
officer

¹ Forbes-Leith : “ The Scots Men-at-Arms in France,” Edinburgh, 1882, Vol. II., p. 187.

² See “ List of Fellows of the Royal College of Surgeons of Edinburgh, 1581-1873,” Edinburgh, 1874, p. 6.

³ Forbes-Leith : “ The Scots Men at Arms in France,” Edinburgh, 1882, Vol. II, p. 187.

⁴ Maitland : “ History of Edinburgh,” Edinburgh, 1753, pp. 46 and 47. Also “ Extracts from the Records of the Burgh of Edinburgh, 1589-1903,” p. 126.



BLACKFRIARS WYND

Looking from the Cowgate, with the House of the Archbishop of St. Andrews on the right
(From a water-colour sketch by Sir Daniel Wilson, in Edinburgh University Library)

the pure in tymes past, at the townis command, conform to the particulare compt thair of presently schawin.”¹

In addition to the surgeons and barbers, numerous apothecaries, some of whom kept shops for the sale of spices and for prescribing and carrying out medicinal treatment, were to be found in the town. There were also physicians, who had probably been trained abroad or had even received degrees at foreign universities, among whom one of the most noteworthy was Gilbert Skeen, who had been mediciner in King's College, Aberdeen, and who set up practice in Niddrie Wynd, Edinburgh, in the year 1575. Another physician practising at the same time was William Cassanate, a Spanish physician, who had been trained at Besançon, in Burgundy, and who is mentioned as the physician of the Archbishop of St. Andrews. Physicians

In the year 1551, Cassanate was settled in practice in Edinburgh. He was then 36 years old and had been attached for four years to the household of John Hamilton, Archbishop of St. Andrews.² His patron, the Archbishop, was a prominent actor in some of the most important scenes connected with the troubled political history surrounding Mary, Queen of Scots. Mary was at this time nine years old. The Archbishop's brother, James Hamilton, Earl of Arran, was next heir to the throne and Regent of Scotland. The Earl of Arran had succeeded in getting the Scottish Parliament to agree to a Treaty with England, arranged in 1543, by which Mary should be married to Edward, the son of Henry VIII., when she was eleven years old. Case of
Archbishop
John
Hamilton



SEAL OF JOHN HAMILTON

The Scottish barons, however, had declared against this alliance with England, and, as a result of the contention of these two parties, the south of Scotland had been virtually destroyed, in two invasions of 1544 and 1547, by the Earl of Hertford. The party in favour of an alliance with England was headed by the Earl of Arran, backed by his brother, Archbishop Hamilton, while the party in favour of an alliance with France was headed by the Queen-Mother, Mary of Lorraine, backed by Cardinal Beaton.

In addition to his own ecclesiastical affairs, John Hamilton practically had to manage all that was difficult in the affairs of Scotland from about 1546, when Cardinal Beaton was put to death. He speaks of himself indeed as being too busy almost to breathe, his health failed from month to month, and at the end of the year 1551, after he had finished his His asthma
and failing
health

¹ "Extracts from the Records of the Burgh of Edinburgh, 1573-1580," p. 535.

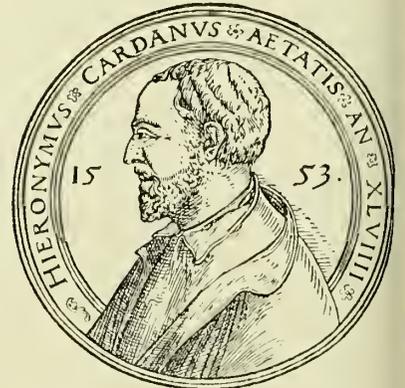
² See Morley: "Life of Jerome Cardan," London, 1854, Vol. II., Chaps. IV. and V.

celebrated "Catechism," attacks of asthma, which recurred every eight days and lasted for 24 hours, had made him very thin and brought him nearly to the point of death. Looking around for medical advice, he was counselled by his physician, Cassanate, to seek the help of Jerome Cardan, the famous physician of Milan.

His physi-
cian writes
to Cardan

In the end of November, 1551, Cardan received a letter written from Edinburgh two months earlier by Cassanate. As this letter contained matters of great importance, and as it had to be sent across Europe by the hands of a special messenger, and was addressed from one dignified physician to another, Cassanate apparently thought that the occasion warranted a very lengthy literary effort. The letter, as printed in Cardan's works, extends over some sixteen folio pages.¹ It began with a general disquisition on the subject of the formation of friendship, quoting the opinions of Cicero and other writers on the matter. Then followed complimentary references to Cardan's books, especially the books on "Subtilty," which Cassanate had only lately read. Finally, he came to the case of the Archbishop of St. Andrews, which is interesting as giving an idea of theories of pathology in the 16th century.

The Archbishop, he said, had been troubled for ten years with periodic asthma caused by a distillation from the brain into the lungs and associated at first with hoarseness, which had been removed, leaving a bad temperature in the brain. The brain, he continued, was too cold and moist, being nourished with pituitous blood. Whenever the brain became invaded with this matter there was a fresh accession of the asthma due to a flow of the same humour down into the lungs—an accession which agreed almost accurately with the conjunctions and oppositions of the moon.



JEROME CARDAN

(From Frontispiece of his "De Subtilitate,"
edition of 1554)

He offered the opinion that the matter flowing down into the lungs was serous, watery and sweet or insipid, for if it were acrid or salt the lungs would ulcerate and the disease would turn to phthisis. Thin at first, the fluid was expelled by coughing, but part becoming thick, adhered to the lungs, and the consequence was dyspnoea with stertor. Various physical signs, such as the heat of the breath, the character of the pulse, etc., were also given. Cassanate then proceeded that the Archbishop was about to visit Paris and begged Cardan to make an appointment with him in that city, so that they might have the benefit of a consultation. If Cardan could not come to Paris, he might at least travel to Lyons, where the Archbishop would come to meet him.

¹ Cardan: "De Libris Propriis," 1557, pp. 159-175.

To this letter, dated 28th September, 1551, Cardan replied that he would go to Paris. On 23rd February, 1552, Cardan set out for Lyons, where he arrived in about three weeks. Here he was met by Cassanate, bearing a letter of introduction from the Archbishop, written in Latin, speaking of serious, urgent and inevitable business which had detained the Archbishop at home, and extending to Cardan an urgent invitation to come to Edinburgh. The letter is brief, business-like and so skilful a combination of compliments, with an obvious anxiety on the Archbishop's part to see Cardan, that it appears almost irresistible. The Archbishop concluded with the words: "Farewell, most learned Cardanus, and visit our Lares to find us not so much of Scythians as you perhaps suppose.—Edinburgh, Feb. 4, 1552." Accompanying the letter were 300 gold crowns as travelling expenses between Lyons and Edinburgh.

The two physicians accordingly set out. In Paris, Cardan met with the heartiest reception, and saw many noble patients. He and Cassanate dined with two celebrated physicians of the French king, Jean Fernel, first physician to the French king, and Jacques de la Boë (Sylvius), the Parisian professor of anatomy, in order to discuss the Archbishop's case. Cardan took great pains not to commit himself. During the discussion, he listened and said nothing, and, when asked for his opinion, declined to speak before the king's physicians had done so. Afterwards he abstained from committing himself, because he had not yet seen the case.

The physi-
cians consult
in Paris

Cardan and Cassanate then proceeded to London, and, after resting three days, continued their way to Edinburgh, a journey of 23 days from London. On 29th June, 1552, Cardan personally interviewed his Scottish patient, who resided on the east side of Blackfriars Wynd, at the corner of the Cowgate.¹ There had been plenty of time on the journey to discuss the case. At the Paris dinner-party, Cassanate's opinion in tracing the Archbishop's trouble to a cold brain had been accepted, and it had been recommended that the former treatment should be continued for 40 days. Cardan, however, traced all the evil to a hot brain, and differed with courtesy from his friends in other essential respects.

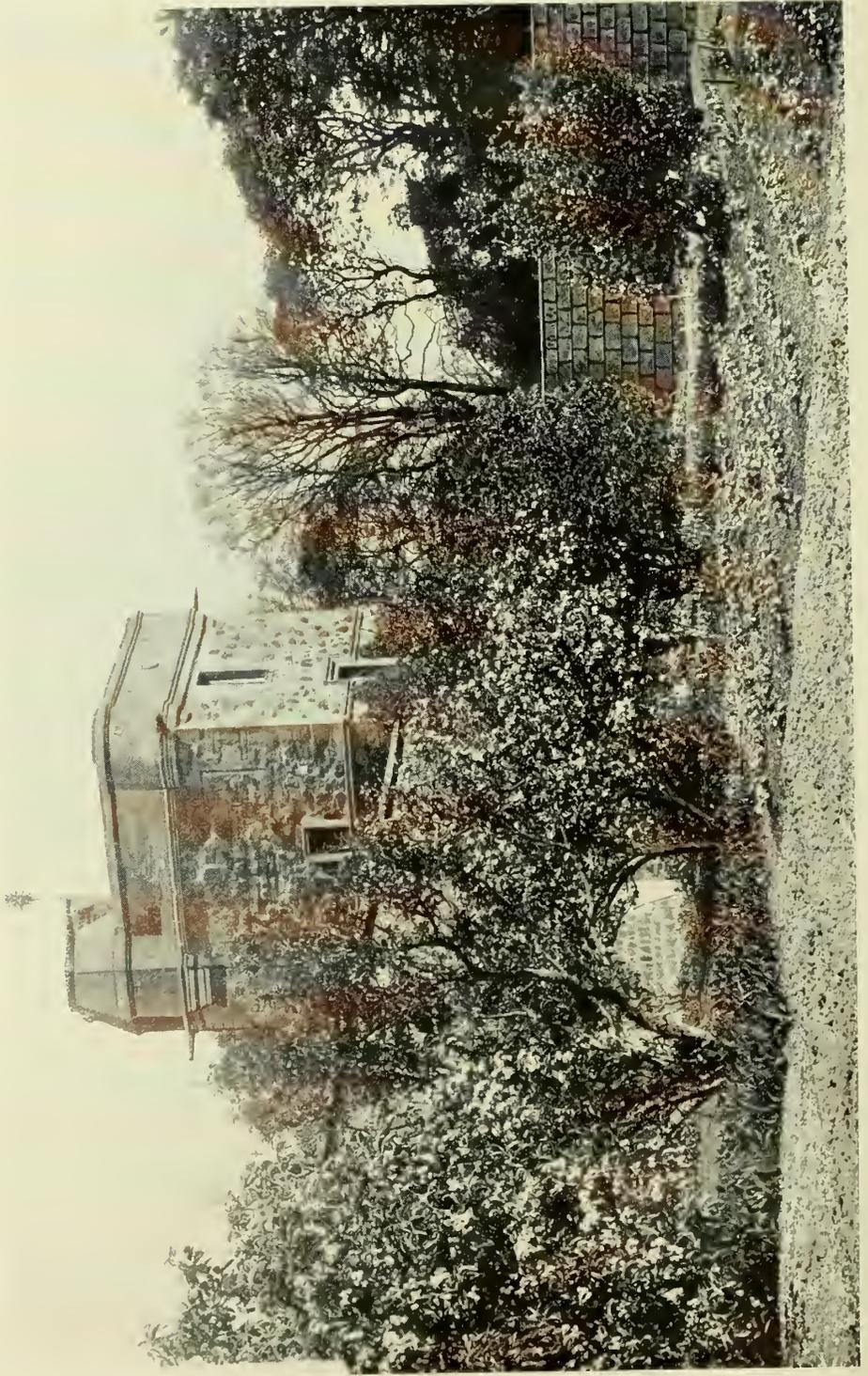
They arrive
at Edinburgh

At the end of 40 days the Archbishop became impatient. He had continued to waste in body and had become restless and dissatisfied. Cardan then pointed out that he himself had formed another opinion as to the nature of the disease and as to the proper way of attempting its cure. The natural result was that the Archbishop was indignant with Cassanate and Cassanate with Cardan, but Cardan at all events was in the favourable position that any change he made would likely be for the better.

Tradition says that the treatment of the Archbishop was carried out at his favourite country seat of Monimail. Monimail was a mensal benefice of the Archbishop of St. Andrews, situated some 13 miles from this town. It had been for generations a favourite country resort of the Bishops and Archbishops

Treatment
commenced

¹ Maitland: "History of Edinburgh," Edinburgh, 1753, p. 182.



ARCHBISHOP BEATON'S TOWER AT MONIMAIL
with garden, where the treatment of John Hamilton was carried out

of St. Andrews. Archbishop Schevez had built the choir of the church, and Archbishop James Beaton had built a square tower of residence surrounded by gardens which were stocked with fruit trees from France. To this pleasant spot Archbishop Hamilton betook himself for the cure, and a spring about a mile from the residence is still known as Cardan's Well, from which the water of the cure is said to have been taken.

In this charming place, lying on the southward slopes of the fertile Howe of Fife, John Hamilton had surrounded himself with well-to-do retainers, settled in the neighbouring village of Letham, to whom he had made grants of parcels of land and who carried on the prosperous trades of miller, brewer, blacksmith, etc., in the little settlement.

Cardan now wrote out his whole opinion for the Archbishop at great length. This is included in a volume of professional opinions subsequently published.¹ Cardan had already discovered that the Archbishop's asthmatic attacks, when he took care of himself, did not occur oftener than every 15 or 20 days, that he never took the amount of sleep necessary, that he was a great eater and drinker, that he was irascible, had a skin that exhaled freely, and had become thin. Cardan's
opinion

After his 40 days' study of the patient, Cardan's written opinion took the form of a long clinical lecture. He did not believe with Cassanate that the matter finally expectorated had collected in His Grace's brain during the intervals between attacks, for if so, the operation of the intellect must have been impeded and the matter so collecting would have turned corrupt. He believed that the thin fluid expectorated was partly serous humour, partly condensed vapour, which descended from the brain into the lungs, not through the cavity of the windpipe, but through its coats, as water soaks through linen. This thin humour he supposed had been drawn into the brain by the increased rarity of that organ caused by undue heat, for heat made all things rare, and rarefaction in one part of the body, to express the idea roughly, produced suction from another. The expectorated matter, Cardan thought, was formed from the food.²

As a practical application of his theories, Cardan said that the basis of the Archbishop's cure must depend on the use of a food as cold-natured and humid as possible. The cold-natured food would resist the attraction of the brain, and humidity would obstruct the soaking down of matter from the brain through the coats of the windpipe, thus compelling it to descend by the interior of the channel, from which it could easily be coughed out. The chief attack by medicine was to be made on the unhealthy temperature of the brain, and with this view the head should be purged, with, of course, previous purgation of the body. Purgation of the head, he explained, might be effected through the palate, the nose or the sutures of the skull. For procuring a good discharge by the nose he recommended the following prescription: Of milk of a goat or cow, Purgation

¹ Cardan: "Consilia Medica," Vol. IX., 52nd opinion, pp. 124-148.

² Cardan reasoned upon principles laid down by Galen. They seem to us now very absurd, but not more absurd perhaps than some physiological theories of 1931 will appear to the medical philosophers of 2000 A.D.

half a pint, of water half a pint, of elaterium two grains; let this be drawn through the nostrils, when the patient has an empty stomach.¹

For further purgation of the head, he recommended the application to the shaven head over the coronal suture of an ointment composed of Greek pitch, ship's tar, white mustard, euphorbium and honey of anathardus, sharpened, if desired, by the addition of cantharides. This ointment, he said, would sometimes fetch out two pints of water in 24 hours, although sometimes only three or four ounces.²

The bath

He advised also the use of the shower bath as recommended by Celsus. In a well-warmed bedroom, the head was to be washed with hot water containing a few ashes. Then a pailful of water, cold from the well, was to be dashed upon it suddenly, after which the head was to be rubbed with cool, dry cloths until no trace of moisture remained. The patient was to remain in the warm room for two hours before going out. By this habit, said Cardan, the brain is kept in a natural temperature and its substance rendered firm and dense. He also strongly advised the use of the bath.

Exercise,
sleep and
work

He then came to what was perhaps the most important part of the physician's care—to prevent the generation in the body of peccant material. His Grace should walk in the shade in tranquil weather, and should be careful not to go out in rain or night air. He should make use of a perfume ball, but the perfume should not include roses, for the scent of roses made some brains warmer. The Archbishop should not sleep upon feathers but upon unspun silk, for the heating of the spine and vena cava upon a feather bed would cause matter to ascend into the head. The patient, too, should lie upon his face or side and, as a relief to the digestion, should press the hand upon the stomach. The pillow should be of dry straw finely chopped or, if His Grace preferred it, might be stuffed with dried seaweed, but not with feathers. The pillow-case also should be of linen and not of leather, and it should be sprinkled at night with a drying perfume.³ The sleep must last for seven to ten hours, and the Archbishop must take the time from business or from his studies. His hours of business were to be limited to four, and might be from noon to four in the afternoon.

Diet

Upon rising, constipation might be corrected by taking a conserve of peaches and sugar of violets, waiting five hours for breakfast and then breakfasting lightly. Breakfast might be replaced by drinking two to four pints of new ass's milk, either in one dose or in several doses. This would serve to nourish his body and his lungs, allay the excess of heat, be grateful to the palate and help to avert consumption. Special directions were also given for the feeding of the ass which was to supply the milk.

His Grace, on rising, ought to comb his hair with an ivory comb, by which the brain was comforted, to rub his limbs, anoint his spine and chest with oil of sweet

¹ Presumably the patient took only a small part of the pint of fluid at a time; otherwise, the purgative effects of two grains of elaterium would have been memorable.

² This warm nightcap would effectually prevent the Archbishop from any desire for the pleasures of the table for several days.

³ The prohibition of feathers and leather is interesting, in view of the modern theory regarding the causation of some cases of asthma by proteins coming from animal materials.

almonds, and, after dressing, to walk for a short time in some pleasant spot out of the sun. Cardan apparently restricted the meals to two in the day, and, discussing whether breakfast or supper should be the chief meal, decided that in every man's case an established custom ought not to be broken. He then gave a long series of minute directions upon food and cooking. He prescribed many articles of diet which would be specially suitable for the Archbishop, with the purpose of restoring his bodily weight. Chief on the list was tortoise or turtle soup. The whole animal except the shell was to be stewed down with water till it was as nearly as possible dissolved. The flesh was then to be eaten and the soup to be drunk, no other food or drink being used for about 20 days.

Another thing which Cardan recommended as excellent was soup made from the blood of a young pig and coltsfoot leaves. Two ounces a day of this, taken with a little sugar, would fatten a man rapidly, and in Cardan's experience had been found able to bring back a hectic person from the gates of death. He also advised soup made of snails, and suggested that frogs might be employed in the kitchens of the Britons as they sometimes were in Italy. A soup, made of thick barley water with chicken broth, flavoured with wine and a little cinnamon or ginger, he also strongly recommended as an easily digested and fattening article of diet.

He added a great number of medical prescriptions to be used in various emergencies, some of them taken from the chief authorities in medicine—Greek, Roman and Arabic—and closed the list with the recommendation of an issue under each knee, to be established, however, only as a last resort if other remedies should fail.

It is evident in all this that while Cardan followed the rules established by authority, in his practical treatment of the case he really was guided by an experienced common sense. The check put upon the Archbishop's appetite, the limitation of his hours of business, the rest of 10 hours in the night on a suitable bed, the morning shower-bath, a strict fast enjoined during the period of an attack, and an infrequent though nutritious diet at other times, improved the Archbishop's health quickly. Cardan remained in Edinburgh for 35 days after his own treatment of the Archbishop had been begun. During that time Scottish nobles flocked to him and paid liberally for his advice. From the grateful Archbishop he had already received 300 gold crowns for travelling expenses, and had been promised 10 crowns a day during his stay in Edinburgh. His Grace now gave him 1400 crowns for himself and 400 for his five attendants, as well as a gold chain worth 125 crowns, and other gifts, including a valuable horse. Cardan's fee

In return for all this liberality, Cardan at his departure handed to the Archbishop a document distinct from the long written opinion already mentioned, containing careful and elaborate directions for the patient's private use.¹ Further directions

¹ Cardan: "Consilia Medica," included in Opera, Vol. IX, p. 225 *et seq*

This gave directions against all sorts of contingencies and was meant as a substitute for Cardan's own presence in Edinburgh. On his morning walk, the Archbishop was to chew a couple of tears of mastic gum to promote the beneficial flow of water from the mouth.¹ As he got better, he was to breakfast at nine o'clock, eating first the liver of a fowl with two or three grains of ginger, after that some bread soaked in gravy, and about two ounces of white wine, and afterwards he might eat at his discretion some chicken, roasted or stewed, and drink wine four or five times in the forenoon, but in all not more than ten ounces. The four hours after noon were to be the hours of business, during which, however, he was not to write letters with his own hand. At four o'clock he was to go out for an hour's ride on horseback, and, having returned, he might give audience to persons desiring to see him. Towards seven o'clock he was to take the second meal of the day. This should commence with a spoonful of pure honey, and an excellent supper might often be made of bread and goat's milk, as was done by a Cardinal whom Cardan knew in Milan. At eight or half-past eight, the Archbishop should retire to bed and should secure ten hours of continued sleep, which would make his hour of rising about 6 a.m.

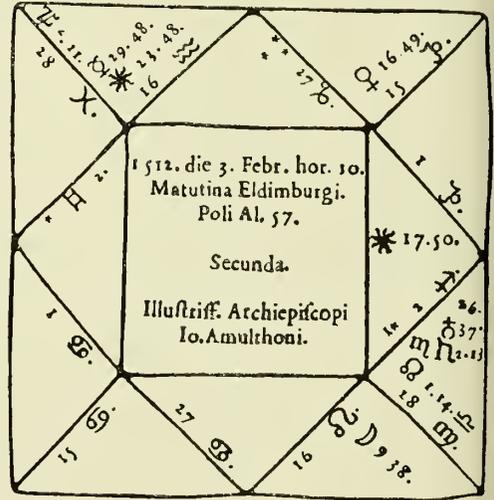
For securing punctuality in carrying out the system laid down, Cardan suggested to His Grace to purchase a good clock, for, he said, every Italian prince had many and good clocks. When they parted, Archbishop Hamilton promised to follow the régime for two years, and then to send a report of the result to Cardan at Milan.

Cardan also considered it advisable to give his patient the following piece of counsel, which at the present day seems superfluous in the case of an Archbishop:—

De Venere. Certe non est bona, neque utilis; ubi tamen contingat necessitas, debet uti ea inter duos somnos, scilicet post mediam noctem, et melius est exercere eam ter in sex diebus pro exemplo, ita ut singulis duobus diebus semel, quam bis in una die, etiam quod staret per decem dies.²

The
Archbishop's
recovery

At the end of two years and one month, a Scotsman arrived in Milan, bearing a letter from the Archbishop to Cardan. In the course of this, His Grace said:



HOROSCOPE OF JOHN HAMILTON, ARCHBISHOP OF ST. ANDREWS made by Jerome Cardan

¹ This accords well with modern American fashion.

² Cardan: "Consilia Medica," Vol. IX, p. 135.

"I thank you not only for your various and very welcome little gifts, but also for my health, that is in great part restored, for the almost complete subjugation of my disease, for strength regained; in fine, I may say, for life recovered. All those good things, and this body of mine itself, I hold as received from you . . . the accustomed attacks now scarcely occur once a month, and sometimes once in two months; then, too, they are not urgent and pressing, as they used to be, but are felt very slightly."

In the 16th century and for two centuries more, Dundee was the second town in Scotland, both in regard to population and wealth, having approximately 10,000 inhabitants. The town possessed at any one time some six or seven practitioners of the healing art, who were variously described as barber, chirurgion or surgeon-surgeon-barber. Buist has collected a list of some 30 men who practised in this town during the course of the 16th century, and from incidental references to these in the Town Council Records, a good picture can be formed of the conditions under which they practised. Apprenticeship here as elsewhere was the method of entrance to the medical fraternity. The word apothecary does not appear in the Records until after the close of this century, and the first time that "doctor of medicine" is mentioned is in the case of David Kinloch in 1591.

Dundee
surgeons

There are many instances of an appeal by surgeons to the magistrates of Dundee for an order that fees should be paid, and the remuneration can be gathered from several of these instances. For example, in 1568, Patrick Walker got a decree for 15s. for healing "a straik fower insche deipe (stroke four inches deep) in the flank of John Robertson, mariner"; in 1584, William Gray, chirurgian, got "twa merks (13s. 4d.) for the healing of David Lawsons," who had been wounded in the shoulder with a quhinger; in 1570, John Brown was ordained either to "cuir and heil the leges of Andro Fothringham," which he had begun four months previously, or to return to the said Andro the money that he had already received.¹

During the course of the 16th century medical books became available in printed form, the first printed in Scotland being Gilbert Skene's *Pest*, published in 1568. It contains, besides an address "To the Redar," eight chapters concerning the pest, a disease terribly fatal in Edinburgh in 1568, when 2500 people are said to have died of it. It is interesting to note that during the worst three months of this visitation, George Bannatyne, a young member of a Forfarshire house, quitted the city and secluded himself in the family residence near Newtyle, where he betook himself vigorously to transcribing a large amount of Scottish poetry. As his 800 closely written folio pages have fortunately come down to our time, he was the means of preserving a great amount of early Scottish poetical literature which otherwise might never have been heard of.² For a further description of Skene's treatise on the pest, see *page 372*.

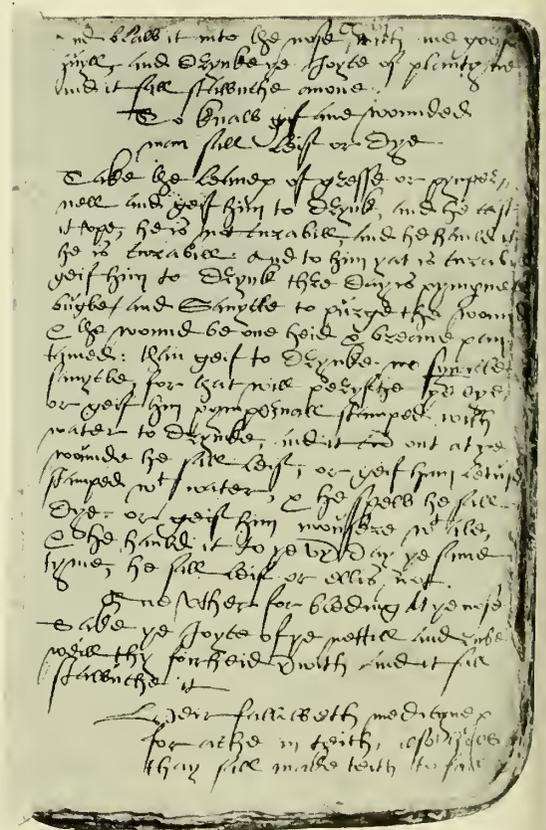
Medical
books of
16th century

¹ Buist: "Dundee Doctors in the Sixteenth Century," *Edinburgh Medical Journal*, May, 1930.

² Dickson and Edmond: "Annals of Scottish Printing," Cambridge, 1890, p. 236.

The old Latin manuscripts used in the monasteries, and the Gaelic translations made by the Highland physicians, were no doubt still employed till the next century, but physicians and surgeons were beginning to make hand-books in manuscript for themselves, written naturally in the Scottish vernacular. Books were scarce and expensive, and any which came into the possession of one medical man were lent to others that copies might be made by hand.

In the Edinburgh University Library there is preserved such a small discoloured manuscript book, which is typical of this period. It contains "The Treasure of Poor Men" (a book printed by Thomas Petyt in London in four editions, 1539, 1540, 1541, 1552), and also "The Dyetary of Health," by Andrew Boorde (printed by William Powell in London, in 1547). It had belonged to Adam Wallas, Rider at Crosbe Kirk, and bears on the fly-leaf that it had been "gotn fra the guid vyff of Bukk," and had afterwards belonged to Adam's son, David Wallace. Various recipes have been added by Adam or David Wallace, as well as notes of their being in various parts of Ayrshire at different times, and the book has evidently been in constant use. The following extracts give an idea of practical medicine in Scotland at the end of the 16th century:—



SIXTEENTH CENTURY SCOTTISH MS. COPY OF
MEDICAL EXTRACTS

belonging to Adam Wallas (F. 23)

(Original in Edinburgh University Library)

ANE GUDE BUIK OF MEDYCINES CALLIT THE TREASURE OF PUIR MEN.

Ff. 14v—15.

For latting of blude thair be thre perrellous dayes in the yeir.

Thair ben tre dayis in the yeir, in the quhilk no man sould lat him blude or blode nayther for infirmities nor yet none wther evyllis, nor these dayis to take no drynks thocht thay be medycynabill. These ben the dayis following. The last day of Apryll, the fyrst Moneday of August, and the last Moneday of December. These thre dayis be forbidden, for than ben all the waynes full of blode, of everiman. And therfoir gif a wemen or man

be latten blude one these dayis, thay sall dye within XV dayis. And ye tak ony medycyne, in the abowe said dayis for any maladye, yow sall die schortlie efter. Also gif ye eit ony goose flesche in the aboue said dayes yow sall dye within XV dayes efter, or ellis be mesell (*leprous*).

Thre gude dayes.

Thre wther gude dayes thair be to be lat blode in, for the fewer, quho that lateth him blude one these thre dayes he sall haif no fewer. That is to say the XV days in the endyng of May, the XVIII day in the begynning of Marche, and the fourt day in the endyng of May. Quho that lateth him blode in the XVIII day of Marche he sall haif no feuer ne tisyke, quho that latteth him blude one the thryde day of Apryll, he sal haif no heid ache. Quho that latteth him blude on the XVII day of December or September, or on Sanct Lambertes day, he sall not fall in no dropyse, fransy, not tisyke. Quho that latteth him blude one the fourt Moneday of July or on the secound Moneday of October, he sall dye haistely. And all these heth bene prowed mony tymes.

Ff. 18v—19.

To purge the heid.

Take the joyce of prymrose, and the mylke of ane knowe, as I supone it should be ane kow. And with ane pen blaw it into they nose thryssles, and it sall purge the heid and make the hole.

For the ache in the heid.

Take camamell for it is gude to ease the yche in the heid, and namely it is gude for the brenning feuer that haldeth ane man or women in the heid.

For the worme in the heid.

Calamynt is gude for to sley the worme in the heid.

For ache in the heid.

Fennell sodden in water swageth the ache in the heid of man or woman, quhen the heid is waschen thairwith.

F. 23.

To knaw gif ane wounded man sall leif or dye.

Take the leaues of gresse or pympernell and geif him to drynk, and (*if*) he cast it upe, he is not curabill, and he hauld it he is curabill. And to him that is curabill geif him to drynk thre dayis pympernell, bugle, and sanycle to purge the wound. And if the wound be one heid and breane pan tamed (*pierced*): than geif to drynke no sanycle for that will perysche the eye, or geif him pympernell stamped with water to drynke, and (*if*) it cum out at the wounde he sall leif, or geif him letuse stamped with water, and (*if*) he spew he sall dye. Or geif him mousere (*mouse-ear*) with ale, and (*if*) he hauld it to the vther day the same tyme, he sall leif or ellis not.

F. 29.

For stynking brethe that cumeth frome the brayne out of thy nose.

Take red myntes and rew, of yche lyke moche, take the ioyce thereof, and at even quhen thow goest to bed put in into they nose thrylles and lay it so that it may rwnne into thy brayne.

For gude brethe.

Quho that vseth to eit verwayne, it maketh gude brethe, and doeth away with the stynke of the mwth.

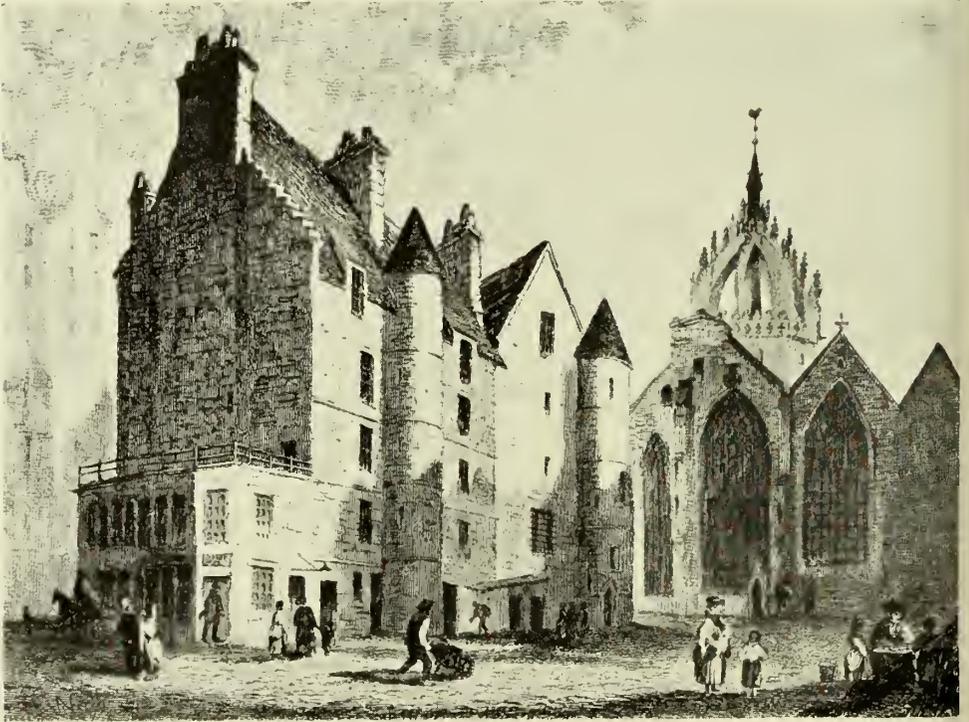
For stynking brethe or stynking nose.

Take the ioyce of blake myntes and the joyce of rew, of the lyke mwch and do it in his nose.

Edinburgh
surgeon's
duel

The century closed with a tragedy for the medical profession in Edinburgh. Robert Auchmowtie, cherurgeane, a burgesse of Edinburgh, was indicted for the slaughter in a single combat or duel of James Wauchope, son of George Wauchope of Cleghorn, a merchant burgesse of Edinburgh. Auchmowtie was a well-known surgeon, and, as recorded by Peter Lowe, had been "sometime chirurgion to the great hospitall of Paris."¹

The facts of this case appear to be that Auchmowtie and James Wauchope had quarrelled in April, 1600, and had agreed to meet upon St. Leonard's Crags in the King's Park, near Holyrood. Here a little dell on the top of an eminence formed a favourite place for such meetings. They fought with swords and Wauchope was killed. His relatives lodged a complaint that Auchmowtie had set upon him with two accomplices "and maist shamefullie and crewallie, with swordis, straik him in the face and vpon the heid, and gaif him foure bludie woundis thairon; and thairbye maist barborouslie, crewallie and tyrannouslie slew the said vmquhile [late]



OLD TOLBOOTH (demolished in 1817), WITH ST. GILES CHURCH, EDINBURGH

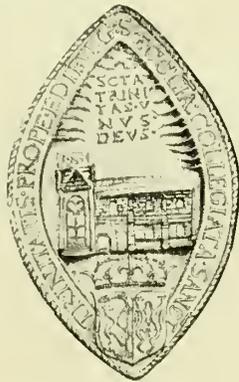
(From a water-colour sketch by Sir Daniel Wilson, in Edinburgh University Library)

¹ Duncan : "Memorials of the Faculty of Physicians and Surgeons" Glasgow, 1860, p.49.

James Vauchope, vpoune set purpois, provisionne and foirthocht felonye." There appears, however, to have been no justification for saying that this was anything but a regular and fairly-fought duel. At the trial, various objections were lodged, and the court appears to have been inclined to postpone and dismiss the matter.

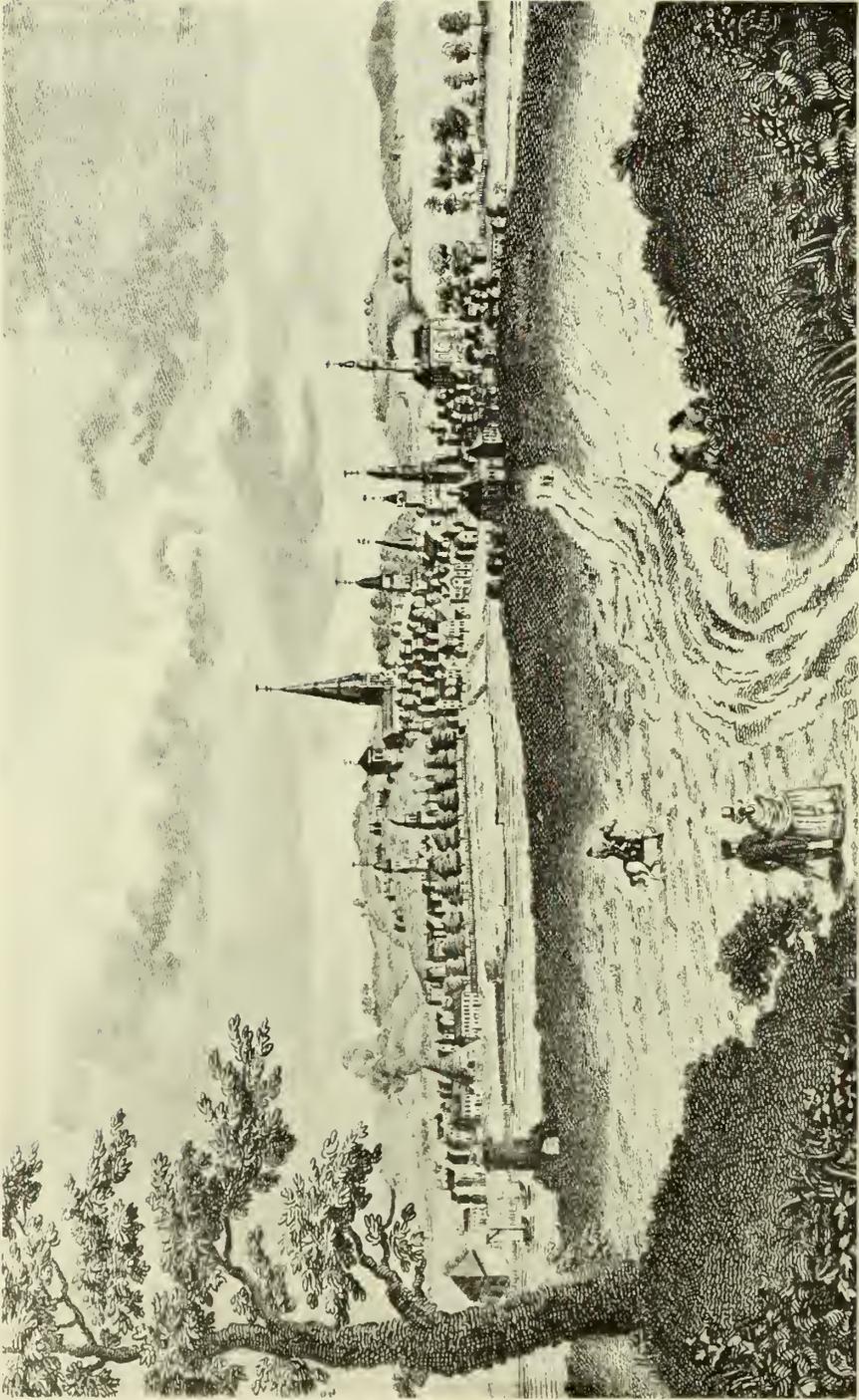
The pursuers, however, produced three letters from King James, written to the Justice Clerk and Deputies from Stirling, in May, and from Falkland, in June, in which he urged diligence upon the court, and finally ordered Auchmowtie to be put to an Assize. The reason for the king's prejudice against Auchmowtie does not appear, but in view of these royal commands, the issue was clear, and Auchmowtie was convicted of the slaughter and condemned to death.

Still, with the dice of justice loaded against him, Auchmowtie made one more bold bid for freedom. Being put in a ward in the Tolbooth, he declared that he was sick and could not bear the light. He hung one cloak outside the bars of his window and another on the inner side and "he had *aqua fortis* continuallie seithing at the irone window, quhill at lest the irone window wes eittine throw." Then one morning he arranged with his prentice to give him a signal by waving his handkerchief at the time when the Town Guard was removed, and hanging out a rope, he prepared to descend. The Guard, unfortunately, had seen the signal, and so Auchmowtie was recaptured. He was beheaded at the Market Cross.¹



SEAL OF TRINITY HOSPITAL, EDINBURGH
After the Reformation

¹ Pitcairn: "Criminal Trials in Scotland," Vol. II, pp. 112-124.



GLASGOW

(Engraving by T. Granger, circa 1760)

Although crude in execution and draughtsmanship and sadly lacking in perspective, this plate contains much of interest to the student of the past. It shows Glasgow as little more than a village glorified by a cathedral and the campanilli of many churches. Interesting to students of the story of healing is the little group of quaint houses on the south bank of the River Clyde. The country road leading from those houses to the very foreground of the picture is now the busy but somewhat sordid Main Street of Corbals. To medical men the interesting point is that these houses occupy the supposed site of the one-time famous Leper Hospital—known as St. Ninian's Hospital—erected about 1350

CHAPTER IX

LEPROSY, SYPHILIS AND PLAGUE EARLY PUBLIC HEALTH REGULATIONS

Leprosy

VERY clear pictures of true leprosy are given in three mediæval treatises: one in the "Lilium Medicinæ," by Bernard Gordon, who is traditionally reputed to have been a Scotsman, and who taught at Montpellier between 1285 and 1307; another by Guy de Chauliac, who wrote his treatise on surgery at Avignon about 1363; and a third by Gilbert, the Englishman, whose "Compendium Medicinæ" was published in 1510. Nevertheless, the diagnosis of leprosy was probably made somewhat recklessly, and no doubt in the Middle Ages persons with other skin diseases, such as lupus or psoriasis, were sometimes segregated as lepers. Among the generally admitted Scottish lepers, the most distinguished was King Robert Bruce.¹

Early notices of leprosy



SKULL OF KING ROBERT BRUCE

showing chronic disease of facial bones, supposed to be leprosy
(From a cast in the Anatomical Museum, University of Edinburgh)

The earliest leper house founded in England, so far as is known, was the Hospital of St. Peter and St. Leonard, at York, founded in 936 A.D. by King Athelstane, which provided for 206 bedesmen. Another was endowed at Canterbury by Lanfranc, the first Norman Archbishop of that See. Others were founded later at Westminster, Southwark, Highgate and other places in London, and there were numerous other hospitals throughout England.²

Sir James Y. Simpson collected references to over 100 leper establishments in that country.³

¹ "Chronicon de Lanercost" (Bannatyne Club), p. 259; also Sir J. Y. Simpson: "Archæological Essays," Vol. II., pp. 113-115. For a full discussion of the leprosy of King Robert, see Macarthur, *Journal of the Royal Army Medical Corps*, May, 1926.

² Creighton: "History of Epidemics in Britain," Cambridge, 1891, Vol. I., p. 86.

³ Simpson: "Archæological Essays," Vol. II., p. 19.

Charity to
lepers

Although lepers in later days were segregated with much severity in Scotland, the following story, related by King David I. to the Abbot of Rievaulx, indicates that considerable tenderness was shown to this despised class in early times. The Princess Matilda, daughter of King Malcolm Canmore of Scotland and of his Queen, Margaret the Atheling, was married to King Henry I. of England in 1100 A.D., and next year sought expression for her religious instincts by founding the leper hospital of St. Giles in the Fields. She was visited by her brother David, who was then a young man, and who later, as King of Scotland, became celebrated for his piety as a "sair saint for the crown." The story, as told by him to the Abbot of Rievaulx, is related by the latter in Latin to the following effect:—

"When he was serving as a youth at the English Court, one evening he was with his companions in his lodging, when the queen called him into her chamber. He found the place full of lepers, and the queen standing in the midst, with her robe laid aside and a towel girt round her. Having filled a basin with water, she proceeded to wash the feet of the lepers and to wipe them with the towel, and then taking them in both her hands, she kissed them with devotion. To whom her brother: 'What dost thou, my lady? Certes if the king were to know this, never would he deign to kiss with his lips that mouth of thine polluted with the soil of leprous feet.' But she answered with a smile: 'Who does not know that the feet of an Eternal King are to be preferred to the lips of a mortal king? See, then, dearest brother, wherefore I have called thee, that thou mayest learn by my example to do so also. Take the basin, and do what thou hast seen me do.' 'At this,' said David, narrating to the abbot, 'I was sore afraid, and answered that I could on no account endure it. For as yet I did not know the Lord, nor had His Spirit been revealed to me. And as she proceeded with her task, I laughed—*mea culpa*—and returned to my comrades.'"¹

Early
regulations
for lepers
in Scotland

The following law regarding lepers was enacted by the Scottish Parliament in the 12th century, and it shows incidentally that the burghs of Berwick, Roxburgh, Edinburgh and Stirling were then provided with leper hospitals outside the towns:—

"Gif [*if*] ony that duellis in the kyngis burgh or was borne in it be fallyn in lepyr that is callit mysal gif that he hafc gudis of his awne thruch the quhilk [*which*] he may be sustenyt and cled he sal be put in the spytaile [*hospital*] of the burgh. And gif he has nocht of his awne the burges of that toune sal ger [*cause*] be gadderyt amangis thaim a collec to the valure of xx s. of the quhilk he may be sustenyt and cled. And it is to wyt [*to be known*] that mysal men sal nocht entre in the toune gangande [*going*] fra dur [*door*] to dur bot anerly [*only*] to pas the he [*high*] way thruch the toune and thai sal sit at the toune end and thar ask almous at [*alms from*] furth passand men and ingangand. And mar attour na man sal tak on hand ony mysal man in his house to herbery na reste wythin the burgh on payn of a full forfalt [*forfeit*]."²

¹ Creighton: "A History of Epidemics in Britain," Cambridge, 1891, Vol. 1., p. 83.

² Laws of the four Burghs (Berwick, Roxburgh, Edinburgh and Stirling), confirmed by King David I. "Acts of the Scottish Parliament (1124-1423)," Vol. 1., p. 344, cap. 58.

In the Forest Laws of Scotland, at an early date, when wild beasts were found dead or wounded, the flesh was to be sent to the house of the leper men if any such happened to be situated near by.¹ Another Act provided that flesh of pork or salmon, found to be corrupt in the markets and accordingly seized, was to be sent to the lepers.²

In the Parliament of James I., which met at Perth on 1st March, 1427, very definite enactments were made in regard to the lepers. Persons afflicted by this disease were not to enter any burgh except on Mondays, Wednesdays and Fridays, between 10 and 2 o'clock; when a market fell on any of these days, they were to delay till the following day; lepers were to beg only at their own hospitals or at the town gate, and in other places outside burghs; bishops, officials and deans were enjoined to enquire, at the visitations to every parish church, whether there were any lepers in the parish, and to notify these to the bishop if they were clerks, or to the king if they were laymen.³

The best known foundation for lepers in Scotland was that at Kingcase, close to the highway between Ayr and Prestwick. This hospital was dedicated to St. Ninian, and founded by Robert Bruce as a thank-offering for benefit received to his own health from the water of a neighbouring spring. It was well endowed with lands and supported eight lepers who had eight bolls of meal and eight merks Scots yearly. It survived the Reformation, and in the time of Charles I. those who shared in the charity lived in huts in the vicinity of the chapel. The ruins of the place were still visible in recent times. The right of presentation to the hospital was vested in the family of Wallace of Craigie, a right which passed by purchase in 1787 to the burgh of Ayr, so that its poorhouse became the lineal descendant of King Robert's hospital.⁴

Leper
hospital
at Kingcase



LEPER CLAPPERS

Intended to give warning of the approach of a leper

At Uthrogal in Monimail parish, Fifeshire, there existed in early times a leper hospital, and this, together with the lands of Hospital Mill in the adjoining parish of Cults, was given over by Queen Mary of Gueldres to the endowment of Trinity Hospital at Edinburgh.⁵

At
Uthrogal

Various leper houses were built by the rich abbeys of Tweedside, such as the Hospital of Aldcambus, in Berwickshire, founded in the reign of William the Lion, and Aldnestun, in Lauderdale.

At
Aldcambus

¹ "Acts of the Scottish Parliament," Vol. I., p. 692.

² *Op. cit.*, Vol. I., p. 729.

³ *Op. cit.*, Vol. II., p. 16, cap. 8.

⁴ Keith: "An Historical Catalogue of the Scottish Bishops," Edinburgh, 1824, p. 476; and Mackinlay: "The Pre-Reformation Church," Edinburgh, 1904, p. 384.

⁵ "New Statistical Account," Vol. IX., p. 41.

At Rothfan

A hospital at Rothfan, connected with the cathedral at Elgin, which was endowed in 1226, and existed before that time, had accommodation for seven lepers, a chaplain and a servant.

At Glasgow

Most of the Scottish leper houses appear, however, to have been refuges in which the lepers supported themselves by begging in the neighbouring towns. Such a hospital was that at the Gorbals of Glasgow, founded about 1350. This had been established by Marjory Stuart, Lady Lochow.¹ From the hospital on the south bank of the river the lepers were permitted, under certain stringent conditions, to enter the town for the purpose of asking alms. To give warning of their approach, they were provided with clappers, and were obliged to wear a cloth over the mouth and face, because of an idea that the infection rested chiefly in the breath. The number of lepers was not great. A report had to be presented to the Town Council every Michaelmas as to the number admitted to the hospital during the year, and this usually amounted to about four or five. In the latter part of 1605, there were seven lepers in the hospital.²

At Edinburgh

In Edinburgh, a leper hospital was founded by the Town Council. In 1584, they enquired into "the estait and ordour of the awld fundatioun of the lipper hous besyde Dyngwall,"³ which was the name of the residence of the Provost of Trinity College, and stood on part of the ground now occupied by the London and North-Eastern Railway Station. Apparently this was not found in a satisfactory condition, for, in 1589, an Act was passed by the magistrates to build a leper house at Greenside, and, in 1591, five lepers of the city were consigned to this hospital.⁴ Two of the wives of the lepers voluntarily shut themselves up in the hospital along with their diseased husbands. Very severe regulations were made by the magistrates to prevent those affected by leprosy from mixing with the citizens of Edinburgh. The lepers were commanded to remain within the walls of the hospital night and day, and to have the door shut after sunset, under pain of death. That this might not be deemed an empty threat, a gallows was erected on the gable of the hospital for the immediate execution of offenders.⁵

This leper hospital appears gradually to have fallen into disrepair. It is mentioned in a charter given to the city by Charles I. in 1636, but in 1652 the magistrates ordered it to be demolished, and its material used for other purposes.

The suburb of Liberton owes its name to a conversion of the term leper-town. The district was already called by this name in old charters of the reign of David I., who died in 1153, as in the foundation charter of Holyrood, where its mill and chapel are mentioned, but the date at which a leper hospital was founded here is lost in obscurity. A well in the neighbourhood, at the Priest's Hill or Grace

¹ M'Ure : "History of Glasgow," 1830, p. 52.

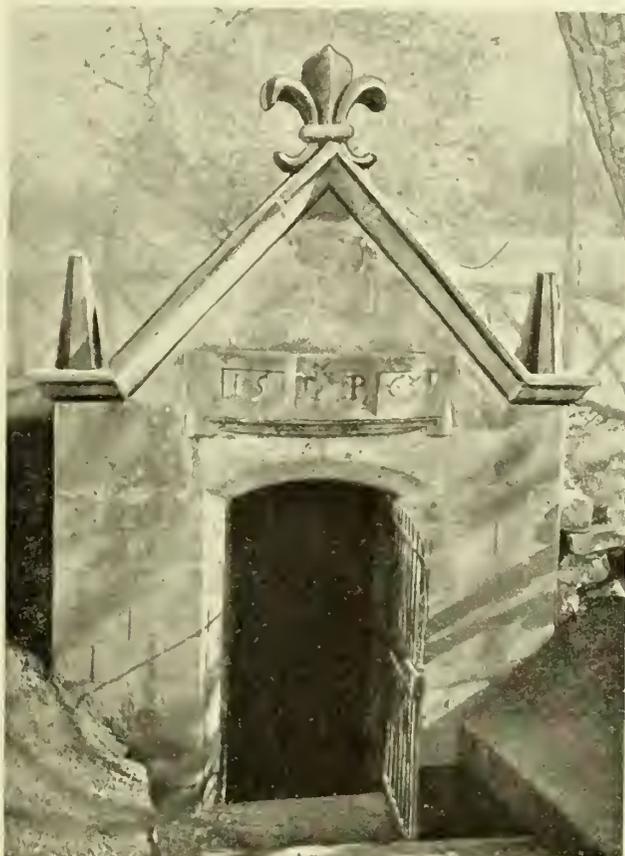
² Cleland : "Statistical Facts," 1837, p. 22; also "Extracts from the Records of the Burgh of Glasgow, 1573-1642," p. 238.

³ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," p. 352.

⁴ "Manuscript Records of the Town Council," Vol. IX., pp. 9, 12 and 123.

⁵ Arnot : "History of Edinburgh," 1779, p. 258.

Mount, was specially celebrated in the Middle Ages for the treatment of skin diseases, because of the mineral oil which floated on the surface of the water, and this was in all probability used specially by the lepers of Liberton.



THE BALM WELL OF ST. CATHERINE'S CHAPEL AT
GRACE MOUNT, NEAR LIBERTON

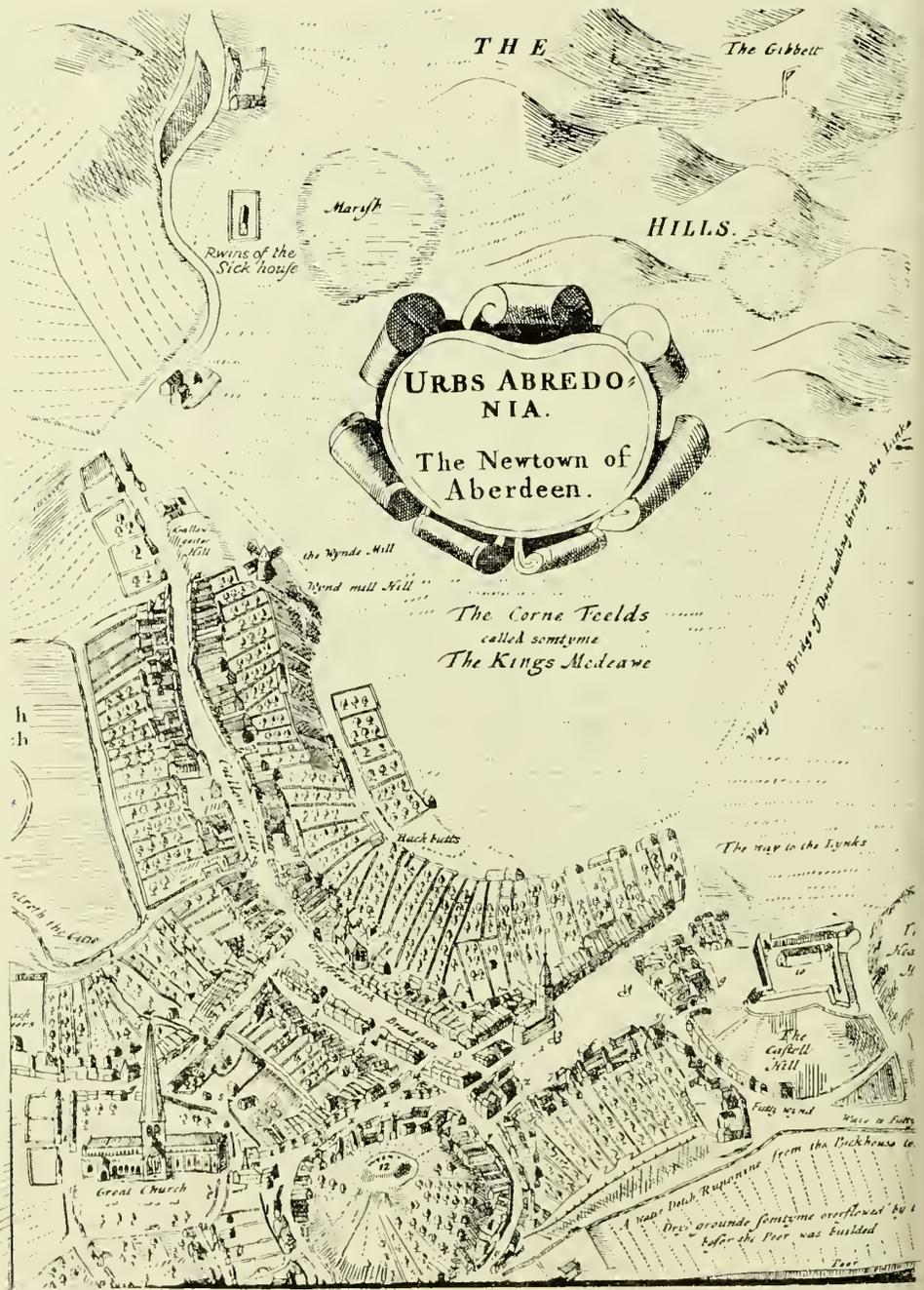
The interior is still thickly coated with black, oily material

In 1528, the Town Council of Edinburgh published an edict dealing with lepers, as follows:—

22 JANUARY, 1528

“The quhilk day, the baillies and counsall statutes and ordanis that [*blank*] Wilsoun, tailyour, and all vtheris suspect of lipper within this towne devoyde thame of the samyn within xv dayes, and gif the said [*blank*] Wilsoun will allege that he hes nocht na sic seiknes that he caus the medicinaris to purge him be thair aythis in the meanetyme; and als charges all maner of lipper folkis that ar in lugeis and hospitaies about this towne that thair convers nocht amang clene folkis nother in kirk merkat or vther wayes bot hald thame be thame selfis in quyete vnder the payne of banissing the towne.”¹

¹ “Extracts from the Records of the Burgh of Edinburgh, 1403-1528,” p. 232.



MAP OF ABERDEEN IN 1661

By Gordon of Rothemay

Showing the site of the Leper Hospital (*Ruins of the Sick House*) on the road leading to Old Aberdeen

In Aberdeen, a leper hospital, which had existed before 1363, is mentioned and figured by Gordon as standing in the 17th century half-way between the Gallowgate Port and Old Aberdeen. At Aberdeen

"Such as goe out at the Gallowgaite Port toward Old Aberdeen, halff way almost, may see the place wher of old stood the lepers hospitall, called the Seick Hous, hard by the waye syd, to which ther was a chappell adjoyned, dedicated to St. Anna, quhome the papists account patronesse of the leapers. The citizens licencit one Mr. Alexander Gallaway, then person of Kinkell, for to build that chappell anno 1519."¹

The Kirk Session Records of Aberdeen of the date 13th May, 1604, mention that "Helene Smyth ane puir woman infectit with leprosie" was ordained to be put in the hospital, and the keys of the said hospital to be delivered to her. She was apparently the last case for the leper hospital in Aberdeen.²

In the beginning of the 18th century, the remains of the hospital and grounds were sold, though its burial ground is still left. The money was made over to the fund for the proposed lunatic asylum.³

Leprosy appears to have prevailed in Scotland after its disappearance from England, and gradually retreated northwards. The last native leper in Great Britain was an inhabitant of the Shetland Isles, and died at Edinburgh in 1798.

Syphilis

The disease known at the present day as syphilis is generally believed to have broken out for the first time in Europe, about the year 1494, among the people in Naples, and among the troops of Charles VIII. of France, who were besieging that city. The earliest notices of it appear between 1492, when Columbus discovered the New World, and 1494, when this outbreak occurred. It is generally believed that the followers of Columbus either imported this disease to Europe for the first time, or, what is more probable, that they introduced a variety of the disease due to a New World strain of the causal organism, which then spread in an almost epidemic form. The disease was known by a variety of names, such as gor, gore, grandgore, grantgore and glengore, as well as the French sickness and sickness of Naples. The word "grandgore" was used by Rabelais in 1532. The word "syphilis" was introduced in 1530 by Fracastoro, in the title of his Latin poem, in which the chief character bears this name. Appearance of syphilis

The introduction of this disease into Scotland was attributed to the motley crowd of foreign adventurers who followed Perkin Warbeck. This individual gave himself out to be the younger of the "little princes in the tower," who had been spared by the assassins of his brother. He was warmly received at the Scottish court by James IV. in 1496, and arrived in Edinburgh attended by 1400 adventurers. James IV. regarded his claims with sentimental approbation and treated him as a useful instrument to employ against Henry VII. of England, even conferring upon him in marriage the hand of the Lady Catharine Gordon, daughter of the Earl of Huntly. A truce, however, being concluded with England, Perkin Warbeck and his mercenaries left Edinburgh in the latter part of 1497 and, two years later, he was captured in Cornwall and executed at Tyburn.⁴ Occurrence in Scotland

¹ Gordon of Rothemay : "Abretoniae Utriusque Descriptio," Spalding Club, 1842, p. 19.

² Cormack : "Poor Relief in Scotland," Aberdeen, 1923, p. 153.

³ Simpson : "Archaeological Essays," Vol. II., p. 13.

⁴ Pinkerton : "History of Scotland," London, 1797, Vol. II., p. 33.

Early regulations at Aberdeen

By 1497 and 1498 there are numerous references to the incidence of the disease in different parts of Europe. Those which concern us here are especially regulations promulgated by the Town Councils of Aberdeen and Edinburgh, with the object of checking its spread. The regulation in regard to Aberdeen is dated 21st April, 1497, and is the earliest notice of this kind in Britain. It runs as follows:—

21 APRIL, 1497

"The said day, it was statut and ordanit be the alderman and consale for the eschevin [*avoidance*] of the infirmitey cumm out of Franche and strang partis, that all licht weman be chargit and ordanit to decist fra thar vicis and syne of venerie, and al thair buthis and houssis skalit [*emptied*], and thair to pas and wirk for thar sustentacioun, vnder the payne of ane key of het yrne one thar chekis, and banysene of the toune."¹

A few years later, in 1507, the Aberdeen Town Council passed several statutes connected with the public health, and one of these dealt with the segregation in their own houses of persons infected with the "strange seiknes of Nappillis," while another forbade folks infected with this sickness to appear at the common flesh-house or to hold converse with fleshers, bakers, brewers and "ladinaris," for the safety of the town.²

It is interesting to note that the Town Council of Aberdeen appear to have clearly discerned the method in which this disease was usually spread, at a time when continental authorities were still in the dark as to its origin.

At Edinburgh

The Town Council of Edinburgh, apparently acting under instructions from King James IV., issued a stringent and celebrated regulation on 22nd September, 1497, through which segregation was to be still more effectively carried out by banishing all those sick of this disease, together with those who professed to cure it, to the Island of Inchkeith. Unfortunately, these restrictions, both in Aberdeen and Edinburgh, although well-designed, appear to have been ineffective. The regulation in Edinburgh was as follows:—

22 SEPTEMBER, 1497 (Ane grandgore Act)

"It is our Soueraine Lordis will, and the command of the lordis of his counsale send to the provest and baillies within this burgh, that this proclamatioun follow and be put till executioun for the escheving [*avoidance*] of the greit appearand dainger of the infectioun of his liegis fra this contagious seiknes callit the grandgor, and the greit vther skayth [*damage*] that may occure to his legeis and inhabitouris within this burgh, that is to say: We charge straitlie and commandis be the authoritie aboue writtin, that all maner of personis, being within the fredome of this burgh, quhilkis [*who*] ar infectit or hes bene infectit vncurit with this said contagious plage callit the grandgor, devoyd red [*leave clear*] and pas furth of this toun and compeir [*assemble*] vpoun the sandis of Leith at x houris befor none, and thair sall thair haue and fynd botis reddie in the havin ordanit to thame be the officieris of this burgh reddely furneist with victuallis to have thame to the Inche [*Inchkeith*], and thair to remane quhill God prouyde for thair health; and that all vther personis the quhilkis takis vpoun thame to hale the said contagious infirmite, and takis the cure thair of, that thay devoyd and pas with thame, sua that nane of thir personis quhilkis takis sic cure vpoun thame vse the samyn cure within this burgh in

¹ "Extracts from the Council Register of the Burgh of Aberdeen, 1398-1570," Spalding Club, 1844, p. 425.

² Op. cit., p. 437.

presens [*at present*] nor peirt [*appear*] ony maner of way; and quha sa beis fundin infectit and nocht passand to the luche as said is be Monounday at the sone ganging to [*sunset*], and in lykwayis the saidis personis that takis the said cure of sanitie vpon thame gif [*if*] thai will vse the samyn, thai and ilk [*each*] of thame salbe [*shall be*] brynt [*branded*] on the cleik with the marking irne that thai may be kennit in tyme to cum, and thairefter gif ony of thame remainis that tha salbe banist but [*without*] favouris."¹

That these regulations were not merely formal, and that the profession to cure this disease was treated as a grave responsibility, is made clear by the following notice regarding Thomas Lyn, a burges of Edinburgh, under whose treatment Sir Lancelote Patonsoun had died:—

18 JANUARY, 1509

"Respitt made to Thomas Lyn, burges of Edinburgh, for ye slauchtir of vmquhile [*deceased*] Schir Lancelote Patonsoun, Chapellain, quhilk happinnit be negligent cure and medicine yat ye said Thomas tuk one him to cure and hele ye said vmquhile Schir Lancelote of ye infirmite of ye grantgor, yat he was infekkit with. To endure for xix zeris. (Subscriptum per dominum Regem, apud Edinburge)."²

The disease seems to have made its first appearance all over Scotland, as appears from the following five notices in the treasurer's accounts, indicating that King James IV. had distributed alms to persons afflicted by the disease at Limplithgow, Stirling, Glasgow and Dalry:—

General
spread in
Scotland

2 OCTOBER, 1497

"Item to thaim that hed the grantgor at Linlithquho viijd."

21 FEBRUARY, 1498

"Item, that samyn day at the toune end of Strivelin to the seke folk in the grantgore ijs."

22 FEBRUARY, 1498

"Item, the xxij day of Februar gifin to the seke folk in the grantgore at the toune end of Glasgo ijs."

APRIL, 1498

". . . seke folk in grantgor in Lithgw as the King com in the toune... .. ijs. viijd."³

1 SEPTEMBER, 1497

"Item, to a woman with ye grantgore thair (at St. John's Kirk of Dalrye, when the King was on a Pilgrimage to 'Qulithirne') iijs. vjd."⁴

It is very probable that these moneys were given to patients who had submitted themselves to different forms of treatment tried upon them by the king himself.

The disease was apparently looked upon with great detestation, for, in 1591, a year of great activity against witches, one of the charges against Ewfame Mackalzane was that she had bewitched Marie Sandelandis and dissuaded her from marrying Joseph Dowglas, of Pumfrastoune, alleging that he had the glengore himself. For this, along with 27 other charges, she was taken to the "Castel-hill of Edinburge, and thair bund to ane staik and brunt in assis,

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," pp. 71 and 72.

² Pitcairn: "Criminal Trials in Scotland," Edinburgh, 1833, Vol. I., Part I., p. 110.

³ Simpson: "Archaeological Essays," Edinburgh, 1872, Vol. II., p. 310.

⁴ Pitcairn: "Criminal Trials in Scotland," Edinburgh, 1833, Vol. I., Part I., p. 117.

quick, to the death." This was the severest sentence ever pronounced by the court, for, in ordinary cases of witchcraft, the culprit was previously strangled at the stake before being burned.¹

Numerous references to the disease occur in the contemporary poems of Sir David Lyndsay and William Dunbar.

Although the disease was present in Glasgow in 1497, the Town Council do not seem to have become seriously alarmed about it until the year 1600, when, on 17th April, the Kirk Session consulted as to how the infection of the glengore within the city might be removed: "Some sent to the Council to deplore the infection that's in this city by the Glengore, and some to convene again in the Blackfriars Kirk anent it, and the whole chirurgeons and professors of medicine to be present. So much was given to a man for bigging a lodge without the Stable Green Port to the women that hath the glengore."²

A minute of 3rd May, a fortnight later, continues: "The provest, bailleis and counsale hes appoyntit Weddinsdye nixt, eftir the preiching, to convey thame-selffis for taking tryall of the inhabitantis anent the greit suspicioune of sindry persones infectit with the glengoir, quhilk, gif it be nocht preventit, will endanger the haill towne, and hes ordanit the haill chyrurgianes to be warnit to that effect to compeir in the Grayefreir Kirk and qu'haever beis warnit (and comes nocht) to pay fyve li. of vnlaw."³ The town's surgeon, Mr. Peter Lowe, had, four years earlier, written a book on the disease, which he had called "The Spanish Sicknes." Possibly his large experience in treating "Spaniards and French, both men and woman, of divers temperatures, who had often been treated both in Spain, Lowe Countries and Fraunce," and whom, he says, he had cured "by the help of God and my confection," may have had some effect, if not in staying the disease, in robbing it of some of its terrors.⁴

Plague

Early
accounts of
plague in
Scotland

Several epidemics of plague in Scotland are mentioned by the early historians. The epidemic which raged throughout Europe in 669 A.D. is recorded by Fordun to have twice devastated Ireland and Britain, but to have spared the Piets and the Scots, although, as he says, great sins were not wanting among these peoples.⁵ The contemporary Northumbrian records make it clear that the plague ravaged disastrously the Lothian district of present-day Scotland. Scarcely any inhabitants were left in country places that had previously been thickly inhabited, and some towns were wholly desolated. Among others, a celebrated sufferer from the plague was St. Cuthbert, who, however, escaped with his life.⁶

In the year 1336, a curious pestilence is mentioned by Fordun as having occurred among the fowls of Scotland, so that almost the whole species of

¹ Pitcairn: "Criminal Trials in Scotland," Edinburgh, 1833, Vol. 1., Part II., pp. 252 and 257.

² Annals from extracts of the Kirk Session, quoted by Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow," 1896, p. 15.

³ "Extracts from the Records of the Burgh of Glasgow, 1573-1642," p. 206.

⁴ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow," Maclehose, Glasgow, 1896, p. 15.

⁵ John of Fordun, "Scotichronicon," Bk. III., Ch. 40.

⁶ Bede: "Vita S. Cuthberti," Cap. VIII.

cocks and hens in the country was totally destroyed, but apparently human beings were unaffected. There had previously been a similar epidemic among the fowls of England in 671. A.D.¹

In the year 1350, the same author records great pestilence and mortality in the kingdom of Scotland, which was worse than any plague before or after up to his time in the following century. In this attack almost one-third of the people died. He mentions that it attacked especially people in moderate circumstances and the poor; and was rarely found in nobles, while it raised such horror of contagion that children fled from their dying parents, and parents from their children as if from the face of a leper or a snake. Again, in 1362, the plague raged over the whole kingdom of Scotland. These outbreaks were part of the "Black Death," which was spread over Europe by the advent of the black rat bringing infection from the East.²

In the year 1420 many well-known nobles died of an infirmity which also killed multitudes of the common people, and was known vulgarly as "Quhew." Bower, who describes this epidemic, and shows in doing so a considerable interest in medicine, says that it was due to the irregularity of the seasons. He then gives a disquisition to show, with the support of Galen, whom he quotes, that, when the winter is mild and damp, and the spring cold and dry, sickness is prevalent and abortion readily occurs.³

In February, 1431, a flying pestilence appeared in Edinburgh. Again, in 1432, the flying pestilence began in the town of Haddington.⁴

Appearance
of plague at
Edinburgh

In the year 1498, the plague, which had appeared in the south of Europe about a century and a half previously, attained alarming dimensions in Edinburgh, and a series of regulations was made by the Town Council with the object of stamping it out in the city. The regulations began on 28th March, 1498, and on 17th November, 1498, the Provost, Baillies and Council, referring to the danger of perilous sickness or pestilence now risen in the east part and largely spread, forbade anyone in the burgh to harbour or receive any traveller on foot or horseback, rich or poor, without first obtaining permission from the Baillies, the penalty for contravention being confiscation of all goods and banishment from the town.

Glasgow seems to have been suspected of harbouring the plague, because anyone passing to Glasgow without permission was subject to quarantine of forty days outside the town. In the following year, further regulations were made against bringing in merchandise, such as wool, skins, hides, or cloth or any kind of food, without permission of the Baillies. Some of the parishes close to Edinburgh, as well as Haddington and Kelso, were in this year afflicted by the plague, and it was forbidden to receive any persons coming from these places. Contravention of these regulations was to be punished by branding on the cheek and banishing from the town.

Isolation
from other
towns

¹ "Anglo-Saxon Chronicle," Ann. cit.

² Comrie: *Edinburgh Medical Journal*, September, 1927, p. 505.

³ Bower: "Scotichronici Continuatio," Ch. XXXII.

⁴ Bower: Op. cit., Ch. XVI. and XX.

The Town Council of Aberdeen, in 1498, confirmed and ratified certain regulations made against pestilence, and in particular the four ports of the city were to be watched by the citizens, although the town was not invaded by plague for some time.¹

In Peebles, also, the four ports of the town were closed and people were forbidden to go to Edinburgh or to bring anything from this place. The side walls of the town, which had apparently fallen into disrepair, were to be made up and none was to be received into the town without leave from the quartermasters. This was in October, 1468.²

The Burgh of Dunfermline also segregated itself for fear of the plague in July, 1499, forbidding any dealing in food outside the town during the time of the plague.³ The plague either actually appeared, or at least threatened in Dunfermline in the year 1504, for the treasurer included in his accounts for that year a note that expense had been incurred for the carriage of the queen's gear from Dunfermline to Lindores, and his feelings in regard to feminine caprice have apparently inspired the following :—

"Item, for xj cartis of Coupir in Fiff quhilk passit to Dunfermlyn to haf caryit the Quenes and Inglismennis gere to Lundoris be the comptrollaris command quhen the Quene suld haf left Dunfermlyne for pestilence and syne scho departit nocht ; to ilk cart viij s., summa iij li. viij s."⁴

Early regulations at Edinburgh

In 1499, the plague appears to have broken out in Edinburgh, and more stringent regulations were adopted. Dogs and "swyne" were to be kept "in hous and band," or, if found in the streets and lanes, were to be slaughtered. Children under 15 years of age were forbidden to wander in the streets under pain of being put in the stocks and beaten. The schools were to be closed, the booths were not to be opened nor markets to be held, and intercourse with Leith was forbidden. The following is the text of the regulations introduced to deal with these matters⁵ :—

6 FEBRUARY, 1499

"It is avysit and statute, in augmentatioun of the first statute,⁶ that na maner of persoun pas furth of this towne to bye or bring in within this towne ony maner of merchandise, sic as woll, skynniss, hyds, or clayth, bot gif thai haif licence of the baillies and counsals, and with that that thai bring sufficient testimonialls that thai ar cum in furth of clene places, vnder the payne of byrning of the stufe and halding furth of the persouns brekars of this statute furth of the town.

"Item, that na maner of stufe nor victuallis be brocht nor resaut into this towne out of na maner of suspect places, vnder payne of byrning and banesing of the bringares."

27 APRIL, 1499

"It is statute and forbidden that ony persouns dwelling within this towne howse harbery or resett ony persouns of Hadingtoun (or) Kelso, considering the seikness is

¹ "Extracts from the Council Register of the Burgh of Aberdeen," Vol. I., p. 66.

² "Extracts from the Records of the Burgh of Peebles, 1165-1710," p. 157.

³ "The Burgh Records of Dunfermline," Edinburgh, 1917, p. 99.

⁴ "Accounts of the Lord High Treasurer of Scotland," Vol. II., p. 463.

⁵ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," pp 72, 74-76.

⁶ 17th November, 1498.

largelie spred thair, vnder the payne of deid, and als that nane of thame cum within this towne vnder payne of byrning on thair cheikis with hett yrne and banesing furth of the same.

"Item, that na maner of persoun indwellare of this towne pas till Peblis for ony maner of airands without leif askit and obtenit fra the officeris, provest or baillies, vnder the payne of withalding furth of the town and banesing but favouris."

8 JUNE, 1499

"It is statute and ordanit that all maner of persouns within this burgh, haffand dogs or swyne, sall observe and keip thame in hoas and band, swa that quhair thai may be fundin in the contrair within this burgh, in hie streits or venellis, thai to be slayne be the persouns limit thairto.

"Item, that na maner of bairnis within xv yeirs of aige be fundin on the gaitt or in streits or in the kirk, vagand, vnder the payne to the said bairnis of putting of thame in the stoks and scourging of thame with wands.

"Item, it is forbidden that ony scholes be halden be ony maner of persouns, men or women, vnder the payne to the haldare of bannesing this towne.

"Item, it is forbidden that ony maner of buithes be oppin to mak merchandice into, or that ony merkett be maid at the ports of this burgh or thairabout, vnder the payne of escheitt of the guidis quhair it may be fundin, bot favouris.

"Item, that all persouns of this towne haiffand ony vittales of corn, wyne and floure in Leyth, that thai bring up the samyn to this towne in all guidlie and possibill haist, for thai heif declairit to the keperis and rewlars of Leyth that thai latt in na persouns thairin to by ony maner of vittales."

In 1499, the magistrates became much concerned with regard to the dirty state of the city, and in November of that year they appointed several cleansers to clean houses with a view to disinfection, at a cost of ten shillings to men of substance, five shillings to others, and to the poor according to their faculty of paying. The official cleansers were to have for wages twelve pence daily—a large sum in those days for a day labourer—because the work was arduous and dangerous. Cleansing
of houses

In the beginning of the next year (1500), the Provost and Baillies made further regulations with regard to houses and clothing presumed to be infected. The chief means of disinfection was an order to wash furniture and clothing in the running Water of Leith, washing in the various lochs round the town being forbidden. The official cleansers were now five in number, and they were to carry, as a badge of office, a little wand with a hoop of white iron at the end. They were to hear mass in the Hospital of St. Mary's Wynd, and their wages were now reduced to six pence a day, but they were to have fees for burials and the cleansing of houses.¹

On 27th September, 1509, a more definite arrangement regarding the town cleansing was reached. Thomas Jhonstoun and Jhone Broun were appointed cleansers, with the duty of keeping the High Street clean from the Castlehill to the head of Leith Wynd, and of setting down yearly 40 roods of new causeway wherever it should be most required. For this service each inhabitant of the High Street was assessed four pence in the year, while fleshers and fishmongers, because of "thair inhonestie and filth of the same," were Of streets

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," pp. 76-78.

to pay sixteen pence in the year, with additional charges for the cleansing of their stands.¹ Still later, in 1527, a whole-time officer in the person of Alexander Pennecuik was appointed to see that the causeway was "dicht and clengeit sufficiently" every eight days, being provided with twelve servants for this purpose, and receiving the sum of twenty pounds yearly.²

Stringent regulations were made in the year 1500 against servants buying clothing without the knowledge of their master or mistress, against the holding of markets until the ensuing St. Giles Day, and against receiving any goods from the country without leave of the town's officers. Beggars and vagabonds not provided with tokens from the magistracy were ordered to leave the town on pain of death. The penalty to the citizens for disobeying these regulations was branding on the cheek and banishing from the town, in the case of a woman, while a man was to have his hand struck off and similarly to be banished.³

These penalties were no idle threat, for on 31st December, 1502, there is a note that a certain Harvy was convicted of breaking the Acts of the town, for which he was adjudged to be taken to the Tron, have his hand struck off and be banished from the town. It does not say what specific Act he broke, but it appears from the context that he had broken some of the regulations directed against the plague.⁴ Also on 27th May, 1521, a certain Bessye Symourtown, who was taken by the watch in the act of hiding plague-infected gear under a pile of wood at the end of Fowler's Close, was adjudged to be branded on the cheek and banished from the town.⁵

As time went on and the plague approached nearer to Edinburgh, the regulations of the Town Council became more strict. In 1502, people other than officers were forbidden to hold any intercourse with infected persons in the town, under the usual penalties, and everyone appearing after 9 o'clock at night in the High Street had to carry a light.⁶ Any persons or goods which had been taken to the Water of Leith for cleansing had to receive a permit in writing to re-enter the town, and the space of time which had to elapse for cleansing and drying the goods was eight to ten days, after which an isolation period of five or six days had to be passed in the house. Before re-entry to the house, fumigation with heather was ordained.

The persons employed to bury the dead were forbidden to mix with the other citizens.⁷ It is interesting that three days after the Seal of Cause had been granted to the Surgeons and Barbers, viz., on 4th July, 1505, a number of further regulations were made in regard to plague. The first example of notification of an infectious disease occurs in the rules that all cases of plague must be revealed to the officers of the town within 24 hours of onset.⁸

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," pp. 124 and 125.

² *Op. cit.*, p. 232.

³ *Op. cit.*, p. 78.

⁴ *Op. cit.*, p. 96.

⁵ *Op. cit.*, p. 204.

⁶ *Op. cit.*, p. 96.

⁷ *Op. cit.*, pp. 100 and 101.

⁸ *Op. cit.*, pp. 104 and 105.

Three months later the duty of notification was imposed upon the "folkis haiffand the rewle and gouernance of that house," and the time for notification was shortened to twelve hours, under pains of branding and banishing.¹

An officer was provided with a horse and close cart and two servants to cleanse the High Street daily, and it was forbidden to leave any filth on the street longer than 24 hours. The sale of second-hand clothes and the shaking or hanging of skins in front of houses was forbidden.²

The plague seems to have died out for some time, but on 14th October, 1512, the magistrates appear to have thought it necessary to recapitulate all the rules in regard to notification of cases of the plague, exclusion of strangers, shutting up of dogs and swine, cleansing of infected goods, etc., and on the 17th January following, a letter, under the Great Seal, was issued by James IV., containing practically the same provisions. In this letter a quarantine period of 40 days is imposed upon infected persons.³ In 1514, the town was divided into four quarters assigned to four baillies for supervision.⁴

The letter containing these regulations for the prevention of plague was sent by messenger to all the burghs in Scotland, and from 1513 onwards the other burghs appear to have followed the practice introduced at Edinburgh. One messenger bore the letter to the burghs in the north and another to those south of the Forth. The treasurer's accounts record the following payments to the messengers:—

Letter of
James IV.

"Item, the xxix day of Januar, to James Bissate, messinger, to pas with the Kyngis lettres to all borowis, fra Forth north, for the gud rewill anent the pestilence, xxx s.

"Item to Duncane Riche, to pas inhkewis to all borowis with the said lettres fra Forth south, xxx s."⁵

The text of the letter runs as follows:—

"JAMES be the grace of God king of Scottis to the provest and baillies of our burgh of Edinburgh greting: Wit ye that with the avys of our counsale for stancheing of the contagious plaige of pestilence now ringing in dyuers places within this our realm, and be Goddis grace to eschew siclyk and apperand caus of the samyn in tyme cuming, safer as may be done with diligence of men, hes deuysit thir statutis and rewlis to be maid and keipit anent the samyn in tyme cuming as eftir followis: Oure will is heirfoir and we charge yow straitlie and commandis that ye mak the saidis statutis and rewlis be keipit within the boundis of your office, that is to say, that ye incontinent in our name and authoretic command and charge be oppin proclamatioun at the mercat croce of our said burgh all and sindry our lieges and subiectis, and alsua strangearis of all vther natiouns resorting within this realme, that nane of thame tak vpoun haud to bring within this our realme, ilis, or ony pairt thair of, be sey or land, ony infectit guidis fra vther pairtis, bot that they mak scharp tryall and diligence to eschew the samyn, under the pain of deid; and gif ony thair vnwitting happinis to bring ony infectit stuf necligentlie that they incontinent revele the samyn to the provest eldermen baillies or officiaris of the place quhair thay arrive, and vse the command of the said officiaris thairin in eschewin the dainger thair of, vnder the pain of deid foirsaid; alsua that na infectit persoun or persouns man

Exclusion of
infected
goods

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," p. 106.

² *Op. cit.*, pp. 105-107.

³ *Op. cit.*, pp. 139-141.

⁴ *Op. cit.*, pp. 149 and 150.

⁵ "Accounts of the Lord High Treasurer of Scotland," Edinburgh, 1877, Vol. IV., p. 404.

Isolation of infected persons, 40 days	Penalty of death for non-compliance	Dogs, swine and cats to be destroyed	Towns to be cleaned	Beggars prohibited	Measures taken on Burgh Muir	<p>or woman our lieges or strangeris being infectit or cumin fra ony infectit places or persouns or intronmitting with ony infectit persounis or gudis cum to kirk mercat priuclie or appertlie be day or nicht or intronmet or convers with clene folkis vnder the paid of deid ; alsua that na persoun nor persouns of quhatsumeuer estait or degrie close in thair houssis, or put to ony vther places be the provest eldermen baillies or officiaris of the burgh or land quhair they ar, cum furth of thair houssis or places that thay ar or sal happin to be put to be nicht or day, bot that thay keip that waird and houssis committit to thame vnder the pain of deid ; Attour all sic infectit persouns as God relevis thame of pestilence and givis thame heall that thay convers nocht nor hant nocht with haill folkis for the speice of xl dayis thairefter, without he haif ane quhyt vand in thair hand, or ane quhyt claith sewit vpoun thair brestis, in taikin of thair seiknes gif thay cum furth, that vther clane folkis may eschew thame, vnder the pain of deid forsaid ; alsua that the houssis gif ony be now infectit or suspectit heirefter that thay haif nalit vpoun thair staris and durris in the maist vtvard and sichty place of thair said houssis ane quhyt claith, in taikin of thair infectioun, and that ye within your boundis se that the samyn be done as ye will ansuer to ws at your vtter perrell, and quaha that beis fundin doing or attempting to do contrar the premissis statutis and ordinance maid be ws and our counsall for the weill of our realme and lieges be ony maner of way in tyme cuming efter the day and the dait heirof that ye within all your boundis mak thay suspectit persouns be on force put in sure fermance, and among vtheris suspectit personis, thair to remane quhill thai be put to ane assys, and gyf thai be convict of ony of the said pointtis and articlis that ye put the samyn to executioun of deid; attoure that ye caus clengeing to be maid delegantlie of all suspectit personis houssis and guidis, gyf ony be at this tyme, or happinis to be in tyme cuming within the boundis of your office, and tak deligent cure and mak scharp executioun heirin as ye will ansuer to ws thairvpoun, and vnder the pane of dittay to be takin of yow for youre negligence buddis or favoris to be pvnist with rigour and ye be fundin negligent or culpabill heirin ; Attour that ye caus all vile and suspect beistis, as doggis, swyn, and cattis, except thame that ar keipit in bandis, to be slane quhairreuer thay may be apprehendit within your said boundis the tyme of pestilence, gyf ony happinis, the quhilkis salbe fre to be slane be all personis officiaris or vtheris that findis thame lous for the tyme, without ony amendis to be maid thairfoir to the pairtie ; Attoure that ye in our name command and charge be oppin proclamatioun all our liegis within the boundis of your office to clenge rewes, windis, closis, and guttaris, bayth on baksyd and foresyd, ilk ane of thame for thair avin pairt, within foure dayis nixt efter your charge, vnder the pane of ane vnlaw of fyve merkis, and to be takin vp and appliit to yow and officiaris of our said burgh for the clengeing of the samyn, and that na personis lay middingis at portis or entres of oure said burgh vnder the said pane, and als that all our liegis cum and vse merchandice and bring to oure mercat all necessaris for merket and court, and that everie man answer for his seruandis twiching the observatioun of all thair statutis, vnder the samyn panis ; and that ye suffer na beggaris to remane within our said burgh bot thai that has ane takin gevin be yow to thame, and thai to be impotent aged or blind folkis, that ar nocht abill to wyn thair leving within the realme vtherways, as ye will ansuer to ws thairvpoun. The quhilk to do we commit to yow coniunctie and seueralle oure full power be thir our lettres. Gevin vnder our signet at Edinburgh the xvij day of Januar, and of our regnne the xxv yeir."¹</p> <p>It appears that the practice of using the Burgh Muir for disinfection, and also for burying persons dead of the plague, had gradually grown up. All goods to be disinfected, and corpses to be buried, were to be removed between nine in the evening and five in the morning.² Beggars and others who were excluded from the town had apparently taken up their quarters in houses and barns on the Burgh Muir, which, therefore, were ordered by the Town Council to be unroofed</p>
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¹ " Extracts from the Records of the Burgh of Edinburgh, 1403-1528," pp. 139-141.

² Op. cit., pp. 176 and 177.

on 3rd April, 1520.¹ As time went on, the regulations against possible infection became stronger and, on 27th August, 1519, it was ordained by the Town Council that persons coming from suspected places or entering the burgh with pestilence upon them would do so under pain of death.²

After this time the plague again seems to have died out for some years, but in 1529 the regulations against infection were renewed. Dundee, Perth, Cupar and other towns beyond the Forth were now suspected, and no one was to come to the Fair of Hallowmass from these places.³ Alane Blair having, despite these regulations, come from the town of St. Andrews, the Provost and Baillies were graciously pleased to have "dispensit with his lyf," but they banished him from the town for all the days of his life under pain of death.⁴ David Scot, who had entered the town, despite his having been twice banished before for breaking of the plague statutes, was now scourged and banished anew for all the days of his life under pain of death. In this year the plague was apparently severe in St. Andrews, for not only were Edinburgh citizens forbidden to cross the Forth, but they were forbidden to receive anyone from St. Andrews under pain of banishment.⁵

Margret Cok, being convicted by an Assize of coming from St. Andrews with infected gear, was branded on both cheeks, her clothes burned, and herself banished from the town, under pain of death.⁶ A similar regulation was passed with regard to St. Monance on 20th February, 1530, and numerous other banishments are recorded about this time.⁷

Persons
branded for
evasion of
rules

Despite all these stringent regulations, the plague appears to have broken out in the city in May, 1530. The regulations were again promulgated, communication with St. Andrews, wandering of swine about the town, and bringing in of clothing forbidden. It was found that great filth had accumulated both on the High Street and in the closes as well as in the gutters of the town, and therefore every man and woman was bidden to "dicht and mak clene befor ther durris and closis," under pain of banishment at the Provost's pleasure.

At the same time, Issobell Forsyth, who had mixed with infected folk and taken the sickness herself, was branded on the cheek, banished for life from the town, and meantime ordained to be taken to the Burgh Muir until she should be recovered. Issobell Cattall also, for keeping secret the sickness of her daughter within her house for three days without revealing it to the officers of the town, was branded, and she with all her children was banished from the town to remain meantime on the Burgh Muir until they were cleansed.⁸

The striking off of the hand of male offenders does not seem, however, to have been so rigorously enforced, for on 25th June, 1530, George M'Turk and

¹ "Extracts from the Records of the Burgh of Edinburgh, 1403-1528," p. 196.

² Op. cit., p. 190.

³ Op. cit., 1528-1557, p. 10.

⁴ Op. cit., p. 11.

⁵ Op. cit., pp. 15 and 16.

⁶ Op. cit., p. 19.

⁷ Op. cit., p. 20.

⁸ Op. cit., pp. 28-30.

Male Mudy, his spouse, Marione Suddirland and Alisone Bird, for having a child sick in their house for three days without revealing it to the officers until the child died, were all branded on the cheek, while Marione Suddirland, who was supposed to have been the source of the infection, was banished for life under pain of death, and the other three banished during the town's pleasure.

Patrik Gowanlok, for harbouring an infected woman for ten days in the lodging of the Abbot of Melrose, was banished for ever, while the servant, Jonet Cowane, who was the cause of the trouble, was sentenced to be branded on both cheeks and banished. A general invitation was issued to those of the townspeople who liked to see justice executed, to come incontinently to the Greyfriars Port where they would see this carried out.¹ After three months' banishment, the Provost and Baillies relented and allowed Patrik Gowanlok to "cum and duell within this toune as he wes wont till do." There appears, however, to have been no relenting towards Jonet Cowane.²

Dauid Duly
to be hanged

An aggravated offence was committed by Dauid Duly, tailor, who had kept his wife, being sick of the plague, for two days in his house until she died, without revealing the same to the officers, and in the meantime had gone to mass at St. Giles Kirk on Sunday "amangis the cleyne pepill, his wife beand *in extremis* in the said seiknes." As, in the opinion of the Town Council, he had done what was in him to infect all the town, he was adjudged to be hanged on a gibbet before his own door. The Council, however, seems to have been somewhat half-hearted in its wrath, because after the gibbet had been erected, it is related that Dauid "at the will of God eschapit," through the rope having broken. As he was "ane pure man with small bairns," the Provost and Baillies took pity on him and commuted his sentence to banishment for life. Willie Myllar, another tailor, for putting out of his house a woman sick of the plague without revealing this to the officers of the town, on the same day received the lesser punishment of being branded on the cheek and banished from the town.³

Marione
Clerk
drowned

It was evidently regarded as a very serious crime for anyone who was sick or who was in contact with the sick, to appear at church, and in October of this year Marione Clerk was tried by an Assize for appearing at mass in the Chapel of St. Mary's Wynd, and for going to her sister's house and other places while the pestilence was upon her. For this she was adjudged to be taken to "the quarell hollis, and thair to be drounit quhill scho be deid."⁴ Issobell Bowy and Kate Boyd, who had been shut up in their houses for suspicion of the plague, were tried for having opened a feather bed and sold half a stone of feathers to Besse Andirsonne, thus running the risk of infecting the whole town, for which the three women were banished.⁵

¹ "Extracts from the Records of the Burgh of Edinburgh, 1528-1557," pp. 35-37.

² *Op. cit.*, p. 42.

³ *Op. cit.*, pp. 35-37.

⁴ *Op. cit.*, p. 43.

⁵ *Op. cit.*, p. 42.

During this epidemic, many people fled from the town, and were forbidden to return without permission from the Council. At various periods, edicts were issued for cleansing the goods of persons who had remained. There are numerous references to infected persons being transferred to the Burgh Muir south of the town (the district now occupied by Bruntsfield Links, the Grange and North Morningside, southwards to the Jordan or Pow Burn and eastwards to Dalkeith Road).

The favourite place for cleansing goods was in the Water of Leith at Drumsheugh.¹ The goods and clothes of infected people in the Muir were apparently stored in St. Roch's Chapel (which stood near the present Grange Loan), and an intimation was made in December, 1530, that people could

Isolation
station at
St Roch's
Chapel



CHAPEL OF ST. ROCH OR ST. ROQUE

In the Burgh Muir of Edinburgh early in the 19th Century, with Blackford Hill and Liberton Church Spire in the background

now claim these, or if they were unclaimed, they were to be burned.² In the severe epidemic which again broke out in 1585, St. Roch's Chapel was used as an isolation place for persons suspected of having the plague.³

Persons who had been taken to the Burgh Muir for isolation were forbidden to come back to town, and especially to St. Giles Church, until they had a licence from the Baillies. In September, 1530, the Provost and Baillies intimated that although, through pity, several persons had not been punished for concealing the plague, they would be visited with still severer pains in the future for any failure to comply with the strict regulations.⁴ As a result of the stringent measures which had been taken, the Town Council was able to announce on 8th October, 1530, that all danger was over and that there had been no appearance of any

¹ "Extracts from the Records of the Burgh of Edinburgh, 1528-1557," pp. 37-39.

² *Op. cit.*, p. 45.

³ *Op. cit.*, 1573-1589, p. 416.

⁴ *Op. cit.*, 1528-1557, p. 41.

infection for eight days past. Still they thought it was "verray proffitable" that the rules should be observed for a year to come.¹

Regulations
for shipping

In the next few years the regulations are mainly concerned with care to keep out the plague, which was still prevalent in other places. Intercourse with Leith, where the plague was still active at the end of 1530, was forbidden.² Various regulations were passed regarding cleansing.³ Ships coming from Bordeaux, Spain and other places from which wine was imported, from Danzig especially, and from various other towns where plague was rife, were forbidden to come to land, and watches were set at Newhaven and Leith for the purpose of preventing this. The plan of dealing with these ships appears to have been to allow them to land their goods for a time upon one of the islands in the Forth, and after an interval to allow the goods to be brought into one of the ports.⁴

Cleansing
and burial
regulations

There seems to have been a small outbreak of plague also about 1568, when the sick were again isolated on the Burgh Muir. Cleansers for clothes and houses were appointed at a salary of eight pounds monthly, and buriers of the dead at five pounds each.* These were provided with a gown of grey, bearing a white St. Andrew's Cross on front and back, and with a staff having a white cloth on the end. Two biers were furnished, covered with black and carrying a bell so that people might be given warning of the approach of a plague-stricken corpse. Bodies buried in the Greyfriars churchyard were to be interred at a depth of seven feet. Persons wishing to visit their friends on the Muir were allowed to do so at eleven in the forenoon in company with the officer appointed for the day, but at no other time.⁵ It is interesting to note that eight days were apparently regarded as the necessary isolation period, for there is a notice that, in 1564, George Younger, furrier, after being cleansed, was ordained to pass to some quiet house outside the town for the space of eight days and thereafter, if in good health, was to be allowed to resort to the town.⁶

Isolation
period
eight days

Medical
inspection

In 1568, one of the regulations was that any person falling sick within the burgh, no matter what the sickness was, must, along with all those in the house, remain there until the Baillie of the quarter had been notified and his instructions received. When it was discovered that the house was infected with plague, the whole household with their goods were forthwith dispatched to the Muir, the dead buried, and the houses cleansed.⁷ Wooden

¹ "Extracts from the Records of the Burgh of Edinburgh, 1528-1557," p. 43.

² Op. cit., pp. 44 and 45.

³ Op. cit., p. 120.

⁴ Op. cit., pp. 227 and 228.

⁵ Op. cit., pp. 253-255.

⁶ Op. cit., p. 184.

⁷ Op. cit., p. 255.

* The salaries quoted in this chapter are given in pounds Scots, which in the 16th century were equivalent to about one-fifth of the value of the English pound, but, in order to obtain an idea of the comparative purchasing power of money in the 16th century and at the present day, it is necessary to multiply by ten. Accordingly a salary of eight pounds Scots per month would equal thirty-two shillings English, or about one shilling per day. The latter would have the purchasing power of about ten shillings at the present time.

huts had been built for the reception of the sick on the Muir, to which they, as well as suspects at a later date, were immediately conveyed from the town.

Various references are made to a Baillie being in charge of the sick folk on the Muir, and an official cleanser was also established here. In November, 1568, Jhonn Forrest was put in charge of the cleansing on the Muir, and the post was so responsible that his appointment was made on terms of the pain of death for any fault.¹ This outbreak died out in the winter of 1569, when Jhonn Legait, master of the deserted Muir, was cleansed, brought home and paid.² On 30th December, 1569, an announcement was made that the pest was over, and that all who had been sick in the hospital of the Senys Convent were to be taken to the Muir and cleansed.³

Another outbreak of the plague took place in 1574, beginning in October of that year at Leith, and being present also at Kirkcaldy. The Town Council of Edinburgh ordained anew that any sick should go to the hospital at Senys, and ordered vagabonds to leave the town within 48 hours. On 15th November, 1574, Jhonn Forrest, cordinar (shoemaker), was again elected to be master cleanser of the "folkis mendit of the pest, and to haue the charge of thair guddis and of the toвне mure." He was to have a servant, to receive six pounds monthly, to keep the people under his charge isolated, clean their goods in sufficient manner, and to work under the ominous regulation that if any infection should happen afterwards through insufficient cleansing of the said goods, he was "to suffer the deith thairfor."

At the same time, a more efficient method of disinfection was introduced by the Town Council, who authorised their treasurer to buy a cauldron for cleansing of the foul goods. This method of disinfection by boiling was adopted in all subsequent outbreaks of the plague.⁴ In the following January, a house called "lytill Loundoun," on the links at Leith, was prepared for the cleansed people on the said links, and the house was to be watched night and day that no one should enter except the officers deputed by the town for the purpose.⁵ This outbreak was over by 18th February, 1575, when the sick were brought back to town.⁶

Disinfection
by boiling

Still another outbreak was threatened in the autumn of 1580, by ships coming from Danzig, and from Bruges and Maine, in the Low Countries. Elaborate rules were made as to the isolation of their crews and disinfection of their goods on the islands in the Firth of Forth.⁷ By the end of the year this threatened attack was over, and those who had been isolated on Inchkeith and Inchcolm were allowed to return.⁸

In the middle of 1584, plague again threatened at Wemyss and other places on the north shore of the Forth. Andrew Sclater and James Henrysoun,

¹ "Extracts from the Records of the Burgh of Edinburgh, 1557-1572," p. 256.

² *Op. cit.*, p. 265.

³ *Op. cit.*, p. 267.

⁴ *Op. cit.*, 1573-1580, pp. 28-30.

⁵ *Op. cit.*, p. 35.

⁶ *Op. cit.*, p. 36.

⁷ *Op. cit.*, pp. 178-181.

⁸ *Op. cit.*, pp. 189, 556 and 557.

chirurgiane, on 22nd July, 1584, were sent to see the conditions in Wester Wemyss so that the Council might take the steps necessary to avoid the pest. Regulations were instituted against bringing goods from Flanders, for the examination of persons coming ashore at Leith, and forbidding any intercourse with Dysart, Kirkcaldy or Wemyss.¹

Charitable grants

The people of Edinburgh appear to have been very charitable with regard to the plague-stricken poor in other places, for in August, 1584, a collection was made for the sick at Wemyss; in December, for the sick at Perth; and in May, 1585, the large sum of £201 was collected from the advocates and their servants, and £43 from the writers, on behalf of the sick in the latter place.² In October, 1584, two burgesses were sent to inspect the town of Dysart with regard to the occurrence of plague, and, following upon their report that Dysart was in need of help, the Town Council of Edinburgh sent them a present of food and almost one ton of soap.³ At last, in April, 1585, a woman died at Edinburgh in the Fish Market Close. Despite the fact that all those who had been in contact with her were isolated in their house, and that the usual regulations for cleansing streets, preventing swine from wandering, etc., were enforced, two of the contacts died. The house was cleansed with diligence, the contacts were now transferred to a house near St. Roch's Chapel, but, notwithstanding, the plague broke out.

Stricter regulations in 1585

A gibbet was set up on the Muir, apparently to form a visible reminder of the public health regulations. A temporary hospital consisting of wooden huts was set up near the Kirk of the Seynis, and five or six other shelters were built on the Muir. The anxiety of the Baillies was now thoroughly roused. Alexander Fraynche, the "clenger," was exhorted to be true and diligent in his office on the Muir, and he was promised, as a reward for diligent execution of his duties, a house, rent-free, and a pension for life. The Council also ordered Dustefute (the hangman) to slay all swine, dogs and cats wherever he might apprehend them. The Council further decided to meet every day for urgent business connected with the plague.

Contacts separated from sick

The Muir appears to have been divided into two parts, the clean or west Muir (St. Roch's Hospital), where contacts were isolated, and the foul or east Muir (Sienna or Sciennes Hospital) where the sick were treated.

The Chapel of St. Roque, or Roch (in Gaelic "Maroch"), at the bridge end of Stirling had been founded by James IV. in 1499, and dedicated to the "Patron of Pestilences." The Chapel of St. Roque on the Burgh Muir at Edinburgh was established by the same monarch some years later, and around it an isolation station, for "contacts" with the plague, was formed at various times during the 16th century.⁴

In 1532, the Hospital of St. Laurence, situated on the west side of the Royal Burgh of Haddington, was formally annexed to the Nunnery of the Sciennes.

¹ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 344, 345, 346, 347 and 351.

² *Op. cit.*, pp. 346, 381, 418 and 419.

³ *Op. cit.*, pp. 358 and 360.

⁴ Moir Bryce: "The Burgh Muir of Edinburgh," *Old Edinburgh Club*, Edinburgh, 1918, Vol. X., p. 172.

This hospital had been founded by Richard Guthrie, Abbot of the Monastery of St. Thomas at Arbroath, and out of the revenues a contribution had been made annually to the burgh leper house at Haddington. The Haddington Hospital was apparently closed shortly afterwards. This must have been a small hospital, as the annual value of its revenues did not exceed £9 sterling.¹ The Hospital of the Sciennes was some years later used for the treatment of cases of plague.

Although it is probable that in previous outbreaks, the town had always consulted some of the surgeons with regard to treatment and isolation regulations for the sick, the Baillies now, on 26th May, 1585, definitely appointed James Henrysoun, chirurgéane, to take care of the sick, to visit all the hospitals of the burgh and the poor who were sick or hurt, whatever their sickness might be. He was to be at the disposal of the Council day and night, and the town was to furnish him with whatever "vngnents, drogs, implasteris and vther mendicaments" he might require. He was to have a yearly stipend of twenty pounds for life. Jhonn Forrest was again appointed cleanser on the clean Muir at ten pounds per month, with various assistants and watchmen. Leave of absence was granted to Robert Rollok and Duncane Nairne, the Masters of the College, to leave the town, because all the students had fled through fear of the pestilence.

Plague
medical
officer
appointed

Other measures taken were the erection of a gibbet on the western Muir, the purchase of a small kettle for disinfecting the clothes of the poor, the erection of a wooden shed at the Greyfriars port to keep infected goods, the housing of homeless children in the Chapel of St. Mary's Wynd, the raising by tax of one thousand pounds for the support of the sick poor, and distribution of food to the latter. A curious regulation was that the sale of "any sybois, leiks or vngyeouns" (sives, leeks or onions) was prohibited during the plague. There were instances of private charity, as, for example, that the tenants of the Laird of Inverleith in the West Port and Potterrow, who took sick, were placed on a separate part of the Muir at his expense.² Robert Fairlie of Braid also offered his house of "Littill Egipt," near the Muir for any suitable use.³

The Council ordered a heavy bier to be employed for burying the dead on the Muir, and forbade that bodies should be carried upon the backs of men or on sledges through the laziness of the buriers. Apparently some of the officials on the Muir had not behaved themselves, for in July, 1585, Smythtie, "the fowle hangman," was ordained to be laid in irons and bound to the gibbet till further order, while the rest of the servants on the Muir who had not obeyed the orders of the Baillies were to be discharged.

The isolation period was increased in August, 1585, to 15 days, and anyone returning from the Muir was to remain in his house for this period before he mixed with the townspeople generally. All gatherings at this time, except at kirk and market, were forbidden, and there appears to have been a great scarcity of town officers and of ministers, even the Provost having absented himself from the town.⁴

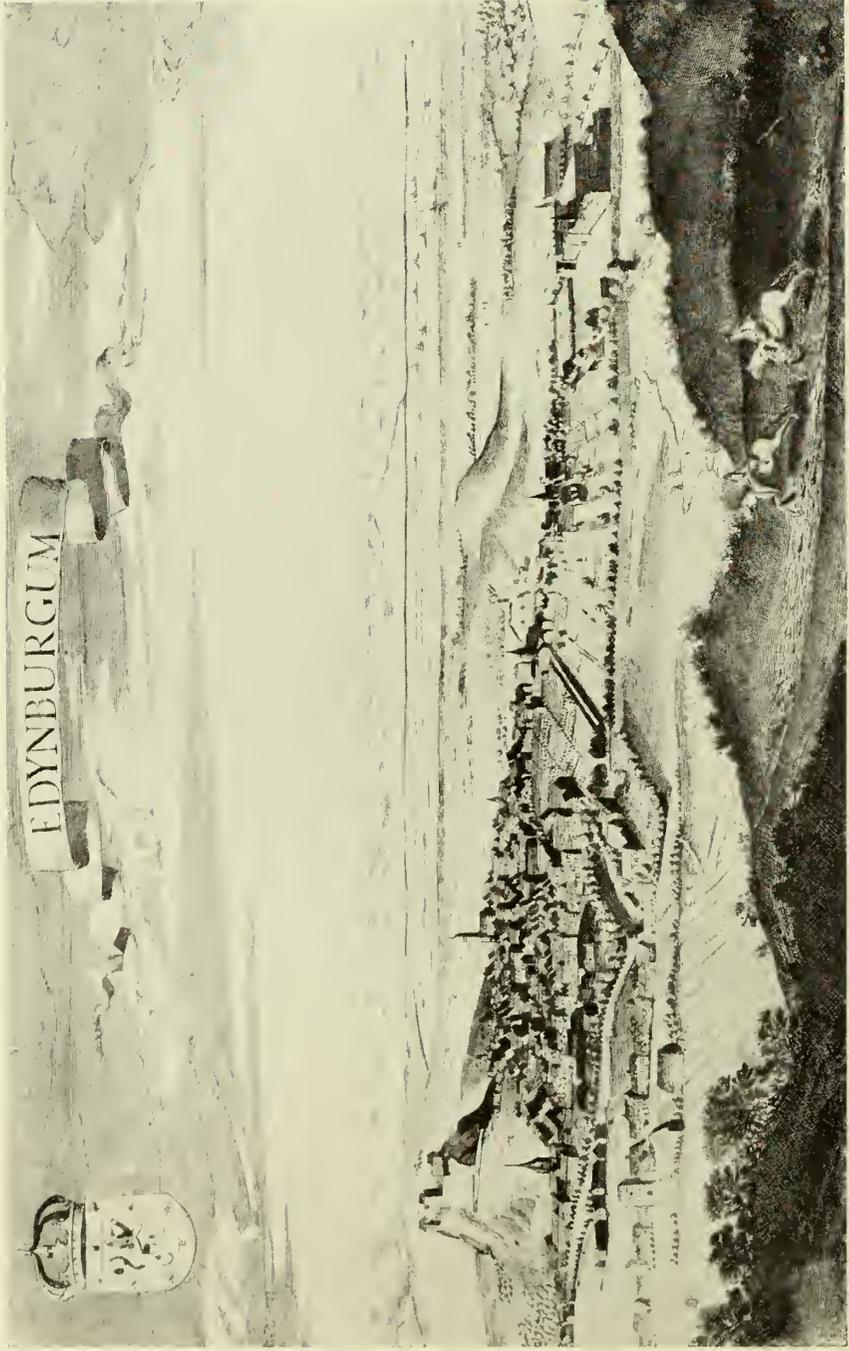
Isolation
period
15 days

¹ Moir Bryce: "The Burgh Muir of Edinburgh," Old Edinburgh Club, Edinburgh, 1918, Vol. X., p. 122.

² "Extracts from the Records of the Burgh of Edinburgh 1573-1589," pp. 413-426.

³ Op. cit., p. 436.

⁴ Op. cit., p. 430-434.



VIEW OF EDINBURGH FROM THE SOUTH-EAST, EARLY IN THE 17TH CENTURY

Showing the beginning of the Burgh Muir in the left foreground

(From an engraving by *Rombout van den Hejen*)

On 17th December, 1585, the plague had so far abated that the Council was able to place the infected persons in a single house (the White House), which they leased for a certain time.

For further purification of suspected goods, it was ordered, in December, 1585, that all such suspected of infection, even if they had been cleansed, should be laid out in yards or other suitable places during the time of the frost.¹ The timber used in the lodges on the Muir was brought in next spring and stored in a vault of the Town's College against the outbreak of some further epidemic.² James Henrysoun, chirurgiane, was thanked for his good services, especially as he had contracted the plague himself and had lost his wife from the same cause. He was exempted from all burgh taxes for the rest of his life.³

Once again, in November, 1587, the pest appeared at Leith, and the usual regulations were adopted. The gibbets were set up in the town, a watch was kept on the gates to prevent the entrance of undesirable persons, and the sick were taken to the hospital of the Seynis. This outbreak, however, does not appear to have been of any great severity.⁴ There were various other smaller outbreaks, as, for example, when in 1593 a ship from an English port, with persons suspected of the plague, was quarantined at Inchcolm. Again, in 1597, the pest began in Leith, and many persons fled from Edinburgh, but the epidemic was over by the end of the harvest.⁵

Plague at
Leith

Aberdeen appears to have been curiously immune from the early visitations of the plague. This may have been in large part due to the severe regulations which had been early introduced in 1498. From 1514 to 1546, a series of regulations was published by the Aberdeen Town Council which, among other things, forbade people to enter the town if they came from places suspected of plague. The "dikes" were repaired, sickness had to be reported at once, watchers were appointed to inspect strangers entering the town. Beggars and vagabonds were to leave the town immediately, and the penalty for contravention of these regulations was branding on the cheek.⁶

At Aberdeen

There appears to have been provision for isolation of suspected persons, for the Dean of Guild, in September, 1545, was authorised to disburse money for their sustenance.⁷ The first actual case supposed to be plague occurred in March, 1546, when there was a notice that Alexander Scottis house was to be cleansed, and his brother's son to be expelled from the town and punished for concealing the pest, while some women who had apparently been in contact were to be sent to the links, and others to be shut up.⁸ In December, 1546, David Spilyelaucht

¹ "Extracts from the Records of the Burgh of Edinburgh, 1573-1589," pp. 441 and 445.

² *Op. cit.*, p. 452.

³ *Op. cit.*, pp. 436 and 437.

⁴ *Op. cit.*, pp. 504-506.

⁵ Creighton: "History of Epidemics in Britain," Vol. I., p. 369.

⁶ "Extracts from the Council Register of the Burgh of Aberdeen," Vol. I., pp. 90, 124, 130, 165.

⁷ *Op. cit.*, p. 222.

⁸ *Op. cit.*, p. 231.

was ordained to be burned on the left hand for concealing the sickness of his child, and the Baillies hardened their hearts to ordain that any similar future offenders were to be "puneist to the deid."¹

In 1549, it was enacted that if anyone died in a house, the household were to leave within 24 hours, and apparently were to take up their quarters on the links, where servants had to be sustained by their masters. Swine were ordained to be shut up and any dogs found in the streets were to be destroyed.² In 1584, the fear of pest was renewed, so that similar regulations were re-enacted, and in May, 1585, when the plague had broken out in Edinburgh, the old regulations were enforced still more rigorously.³

In May, 1585, the magistrates had erected three gibbets, "ane at the mercat cross, ane other at the brig of Dee, and the third at the haven mouth, that in case ony infectit person arrive or repair by sea or land to this burgh, or in case ony indweller of this burgh receive, house, or harbour, or give meat or drink to the infectit person or persons, the man be hangit and the woman drownit."⁴

At this time two persons were banished for harbouring strangers without licence.⁵ In 1597, all trade with Edinburgh, Leith and Lothian, which were infected with the plague, was forbidden and no boat from these places was allowed to enter the harbour of Aberdeen.⁶ By December, 1600, plague had approached as near as Moray, and a public fast on Sunday was ordained. The outbreak was apparently in the parish of Duffus.⁷ Similar regulations appear now and then during 1604, but by December of that year the watching of the ports was to cease.⁸ In 1606, trading with Dundee or Perth was forbidden under a penalty of £40.⁹

Rats and
mice to be
destroyed

Occasional regulations appeared during the next half century, and in 1647, when the plague was at Bervie, Brechin and other places in the neighbourhood, an important set of regulations was introduced containing among other provisions a notice, which appears to be the first of its kind in Scotland, that poison was to be laid for mice and rats.

At this time occurs the first mention of a definite outbreak of plague, when a woman coming from Brechin occasioned plague in Petmuckstoun, of which two people died.¹⁰ In 1649, Patrik Watson, the constable, appears to have committed a great breach of trust, for he had concealed a sick person in his house, and he was condemned not only to stand on market day shackled to the scaffold, but to pay the large fine of 200 merks.¹¹

¹ "Extracts from the Council Register of the Burgh of Aberdeen," Vol. I., p. 246.

² *Op. cit.*, p. 273.

³ *Op. cit.*, Vol. II., p. 56.

⁴ Creighton: "History of Epidemics in Britain," Vol. I., p. 371.

⁵ "Extracts from the Council Register of the Burgh of Aberdeen," Vol. II., p. 57.

⁶ *Op. cit.*, p. 154.

⁷ "Records of Elgin," Vol. I., p. 86.

⁸ "Extracts from the Council Register of the Burgh of Aberdeen," Vol. II., p. 265.

⁹ *Op. cit.*, p. 287.

¹⁰ "Extracts from the Records of the Burgh of Aberdeen," pp. 81-83.

¹¹ *Op. cit.*, p. 94.

There is a notice from Elgin in 1545 that George Cruksank has been suspended from trade because he had returned from Aberdeen, where the plague is, and occasional preventive regulations were made by the Baillies of Elgin up to 1665, when a fast day was proclaimed because of the plague in England.¹ Plague at Elgin

Numerous references to plague in the Burgh of Stirling occur from 1545 onwards. These refer especially to the plague in Edinburgh and Leith, but, in 1549, James Hall was convicted for failing to notify plague in his servant and turning out his goods.² In 1601, a visitor was appointed to go to Glasgow and report on the state of plague in that city.³ Again, in the early part of the 17th century, restrictions were imposed upon intercourse with Edinburgh, St. Andrews, Kirkcaldy, Kinghorn and Torryburne.⁴ At Stirling

In 1606, the plague was definitely present in Stirling, and £48 was given to the treasurer for material to make lodgings for the sick in the Brighauch.⁵ In 1607, the Baillies drew up a list of all those who had had the plague, and cleaners who had come from Edinburgh, Linlithgow and Leith were paid.⁶ Several references to restrictions against plague occur in the early half of the 17th century, ending up, in 1665, with the prohibition against the admission of goods from England because of the plague in London.⁷

At Peebles, the plague had broken out in 1605, and all sickness was ordained to be notified to the Baillies under pain of death.⁸ In 1645, a man from Edinburgh was ordained to remain with his family behind locked doors in his "barne" till the infection was over, under pain of £500 Scots, and two families from infected houses were to be put on the "Grene."⁹ Again, in 1665, there was a prohibition of trade with England.¹⁰ At Peebles

In Lanark there is a notice of plague in 1570, but there does not appear to have been any resident doctor, for in this year an allowance of 5s. is made "to the doctor that the minister brocht," as well as an item of "tua merkis allouet to him for four Monundayis custum in tyme of the pest."¹¹ In 1604, the Baillies were again active in the prevention of plague, specially as regarded its possible importation from Edinburgh. Jhon Broun, for admitting inhabitants of Edinburgh to the burgh was fined 40s., and Jhon Ryd was adjudged "to be wardit" on his return from Edinburgh because he went to a suspect place without leave.¹² At Lanark

¹ "The Records of Elgin," Vol. I, pp. 86, 117, 176, 177; Vol. II, pp. 84, 86, 90, 123, 260, 304.

² "Extracts from the Records of the Royal Burgh of Stirling," p. 56.

³ *Op. cit.*, p. 100.

⁴ *Op. cit.*, p. 113.

⁵ *Op. cit.*, p. 114.

⁶ *Op. cit.*, pp. 115, 117.

⁷ *Op. cit.*, p. 249.

⁸ "Extracts from the Records of the Burgh of Peebles," p. 357.

⁹ *Op. cit.*, pp. 379 and 380.

¹⁰ *Op. cit.*, p. 398.

¹¹ "Extracts from the Records of the Royal Burgh of Lanark," p. 51.

¹² *Op. cit.*, p. 116.

At a later date the charter of the masons and wrights was ordered to be cleansed because it had been in the hands of James Glen, who died with all his family of plague in 1645.¹ It is unfortunate that the disinfectant used for this document is not specified.

At Glasgow

Glasgow does not seem to have been troubled early by the plague, but in 1574, the magistrates ordained that no one from Leith, Kirkcaldy, Dysart, Burntisland, or other suspected place, was to enter or trade with the town. Intercourse with Edinburgh was prohibited under pain of £10, and watchers of the brig, water and gates were appointed.² In 1584, as the plague was increasing in Fife, similar regulations were made against intercourse with this county, and in 1588, as pest was present in Paisley, this town was banned under pain of £5.³ In 1588, it was reported that the plague was increasing in Paisley,⁴ and, in 1605, a penalty of £20 was imposed upon anyone who received people from Lanark, Peebles, Peddert, Leith or Linlithgow.⁵

In August, 1605, it was reported that plague was increasing in Edinburgh, and strangers from this place were banned under pain of £20 fine and banishment.⁶ In 1606, two cases of plague were notified in Glasgow.⁷ An order was issued that beggars should leave the town, and that dogs and cats should be shut in, while £100 was voted to the poor shut up at the Muir for the plague.⁸ In 1608, a statute was issued against going to Dundee, Perth and the coast places in Fife, and, in 1624, Edinburgh was declared to be infected by the plague.⁹

In 1625, the inhabitants of Glasgow were forbidden to go to England without informing the Baillies, and from 1644 to 1666 there were numerous provisions for dealing with the disease.¹⁰ Among these, quartermasters were elected to search out sick persons, visiting of the Muir where the sick were kept was forbidden, and various doctors were appointed to visit the sick poor. Thus, Dr. M'Cluir was appointed in 1647 "to attend the visitatione of the town for ane monethe to come, and to geive him ten dollouris for bygainne service to incuradge him," and later in the same year, £40 was given to John Hall for visiting those dead of the pestilence.¹¹

In 1648, the pestilence was still increasing, and there was voted "100 merks to Johne Hall, chirurgeon, for his service in attending the magistrates at all times anent the pestilence," and on 2nd October of this year, "£40 to Johne Hall in complete payment of his services."¹² Finally, in 1665, measures were

¹ "Extracts from the Records of the Royal Burgh of Lanark," p. 196.

² "Extracts from the Records of the Burgh of Glasgow," Vol. I., p. 27.

³ *Op. cit.*, pp. 110, 118.

⁴ *Op. cit.*, p. 119.

⁵ *Op. cit.*, p. 227.

⁶ *Op. cit.*, p. 231.

⁷ *Op. cit.*, p. 254.

⁸ *Op. cit.*, p. 255.

⁹ *Op. cit.*, pp. 294, 344.

¹⁰ *Op. cit.*, p. 348; Vol. II., pp. 74, 101, 113, 119, 123, 144, 145, 147; Vol. III., p. 61.

¹¹ *Op. cit.*, Vol. II., pp. 119, 123.

¹² *Op. cit.*, p. 147.

taken for the prevention of pestilence from England, and in 1666 it was ordained that all goods lately brought from Jedburgh and thereabout should be publicly burned.¹

At Paisley the Baillies declared, in 1604, that the pest was drawing near, and forbade the inhabitants to go beyond the sheriffdom of Renfrew. Anyone entering the burgh by back ways was to be fined £5.² The walls of waste lands near the gates were to be built up and covered with thorns so that none might climb over. The watchers at the east and west gates were to be provided with a sword and Jedburgh staff, and fugitives from Glasgow were to be excluded till they had been away from that town for six weeks.³

It is surprising that in their regulations against dogs and swine and dirt in the streets, and the chance of infection by persons coming to the town, the Baillies of Edinburgh did not suspect the rats as a possible cause of plague. The black rat which brought plague into Europe from the East in the 14th century had reached Scotland before the 16th century, and was plentiful in many places throughout the country.

A curious fact, which may explain the comparative immunity of the northern city from the plague, is that rats were unable to subsist in Aberdeen. Bishop Leslie, in 1578, records in regard to Aberdeenshire: "In this cuntrey na Rattoune is bred, or, brocht in frome ony vthir place, thair may lyue [*live*]." A similar fact is recorded in the 17th century with regard to Sutherlandshire, and in Liddesdale the same tradition was long preserved.⁴ In any case, the Baillies of Aberdeen had the merit of being the first to ordain, in 1647, that poison should be laid down for rats and mice.⁵

From 1603 to 1609, plague was present in one place or another throughout Scotland, but there was no serious epidemic. In 1644, it again appeared in Edinburgh, Kelso, Bo'ness, Perth and other places. At Edinburgh the plague-stricken were housed in huts in the King's Park below Salisbury Crags, and at Perth the epidemic is said to have given rise to the story of Bessie Bell and Mary Gray, who fled from the plague-stricken city and "biggit a bower on yon burn brae, and theekit it ower wi' rashes."⁶ At Glasgow, the infection was severe from 1645 to 1648, but this year is the last in which plague is heard of in Scotland.⁷

¹ "Extracts from the Records of the Burgh of Glasgow," Vol. III, pp. 61, 67.

² "Extracts from the Records of the Town Council of Paisley," p. 268.

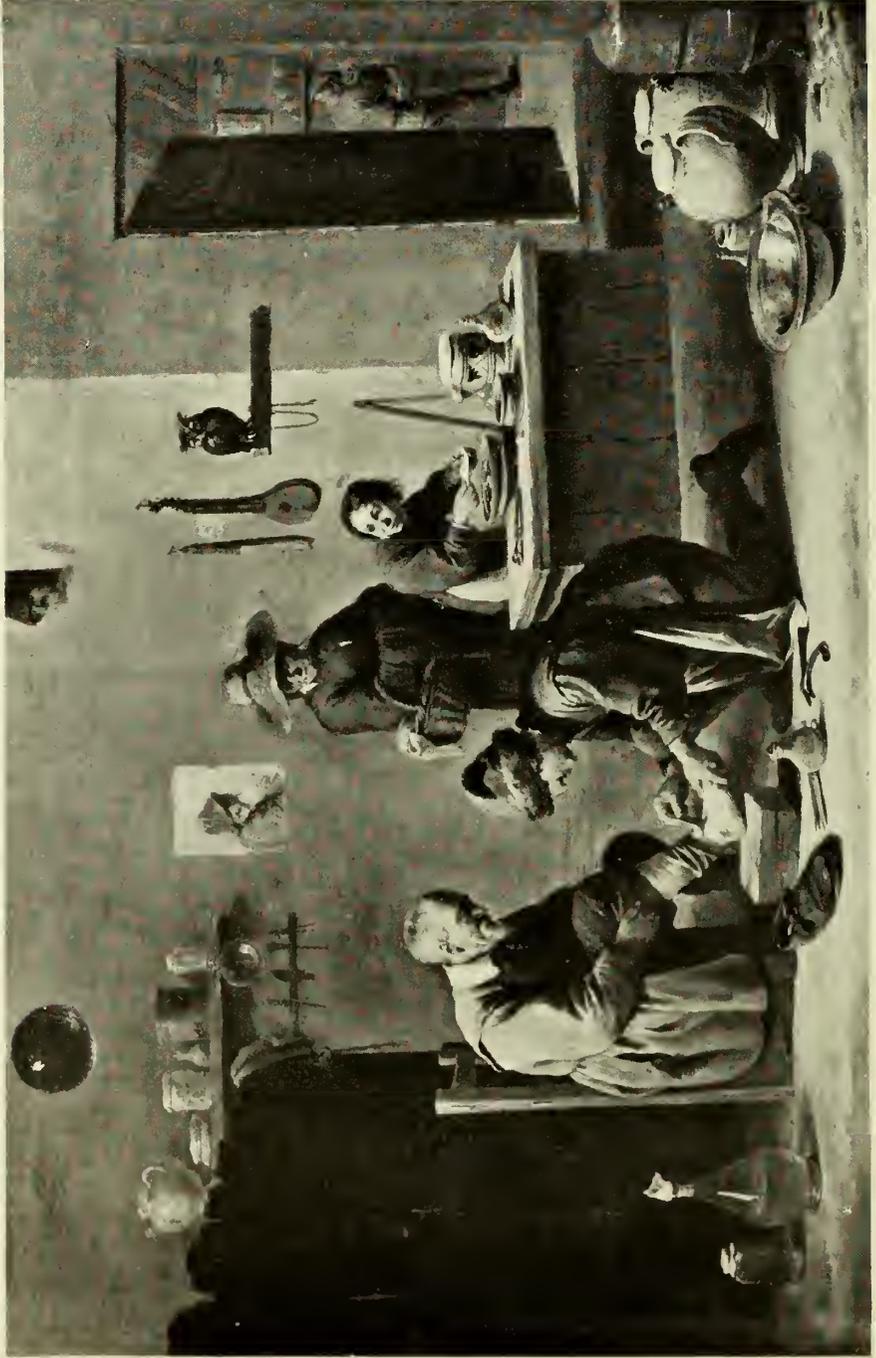
³ *Op. cit.*, p. 248.

⁴ Ritchie: "Animal Life in Scotland," p. 426; *a/s* Leslie: "Historic of Scotland," Edinburgh, 1888, p. 47.

⁵ "Extracts from the Records of the Burgh of Aberdeen," pp. 81-83.

⁶ Chambers: "Domestic Annals of Scotland," Vol. II., pp. 166 and 167.

⁷ Creighton: "History of Epidemics in Britain," Vol. I., p. 563.



A SURGEON-APOTHECARY OF THE 17TH CENTURY
The picture, painted by David Teniers, the Younger (1610-1690), at Brussels, gives an impression, applicable to Scotland, of the conditions of general practice in the latter half of this century

CHAPTER X

GENERAL AND MILITARY PRACTICE IN THE SEVENTEENTH CENTURY

DURING the 17th century Scotland was an extremely poor country. The southern and more wealthy part had been wasted by the English Wars in the middle of the 16th century, by the plague, and by the internal political troubles associated with the period of the Reformation. About the middle of the 17th century, the country was still further impoverished by the Civil Wars, the efforts made in 1650 on behalf of Prince Charles, and the great fines subsequently imposed by Cromwell. The 17th century accordingly was one which showed only a very gradual development in medicine.

State of
Scotland in
17th century

Opportunities for medical education were few, and means of transport were extremely bad and slow, so that it was difficult for medical practitioners to travel any great distance to see patients, except in the case of the wealthy, or, indeed, to subsist at all in country places. With the exception of a few roads between the principal towns, there were no routes over which wheeled vehicles could pass, and such roads as existed were of very poor quality. Communication in country districts was carried out entirely on foot or horseback. Even carts were not introduced till late in the 17th century, and merchandise was transported on rough sledges or by horse panniers. Horse litters also had been used from early times by wealthy and sickly people.

So late as 1658, a stage-coach passed between London and Edinburgh only once in three weeks.¹ Two places so near as Edinburgh and Haddington were connected by stage-coach only twice weekly in the year 1678, while the first stage-coaches between Edinburgh and Glasgow were set up in this year, subsidised by the municipalities, and even so, were unsuccessful. A traveller in Scotland, in 1688, says that there were then no stage-coaches, although the great men of the country often travelled by a coach and six, exercising great caution, with a footman

Few means
of communi-
cation

¹ Chambers: "Domestic Annals of Scotland," 1858, Vol. II., p. 247.

In this and following chapters dealing with the 17th century, salaries and other payments are quoted in pounds Scots unless otherwise stated. The Scottish coinage had depreciated rapidly as against English sterling towards the end of the 16th century. In 1554, a judgment by the Lords of Session had fixed £381 15s. Scots as equivalent to £76 7s. English, that is, Scots coinage was one-fifth the value of English coinage. By 1580, Scots coinage was about one-eighth the value of English, and by 1600 it had fallen to one-twelfth, where it remained. During the 17th century, therefore, the Scots pound was equal to 1s. 8d. English. With regard to purchasing power, however, actual living in food and clothing was cheap in Scotland, but Continental commodities would have to be paid for in sterling.

running on each side. Letters were carried by foot-post and carriers, and so late as 1749, communication between Edinburgh and Glasgow (now occupying sixty-five minutes) was effected twice in the week by a covered spring-cart, which took a day and a half on the journey.¹ In 1716, a traveller proceeding from Edinburgh to Ross-shire got as far as Queensferry in a coach and then had to proceed on horseback, taking six days to cover 170 miles.²

Even in 1740, Lord Lovat, having occasion to travel from Inverness to Edinburgh with his two daughters, had to carry a wheelwright with him in order to repair his coach on the journey, which occupied twelve days, and was attended by numerous accidents.³ The famous roads through the Highlands, begun by General Wade in 1726 (the year in which the Medical Faculty at Edinburgh was founded), did much to accelerate communication between certain places, but only 260 miles of road were affected, and these were not finished until late in the century.

Inns, too, were of late development in Scotland. Fynes Moryson, a gentleman who made a tour in Scotland about the year 1598, and published his "Itinerary" in 1617, stated that there were no inns as in England, but in all places some houses were known where passengers might have meat and lodging. He, however, records the great hospitality with which he met.⁴ This isolation had a paralysing effect upon all attempts to improve medical practice or better the practitioner's knowledge.

Few country
practitioners

As an example of the sparseness of medical practitioners in country districts, it is said that there was only one medical man on the main road for 50 miles north of Aberdeen at the beginning of the 18th century, Dr. Beattie, in the Garioch. "In his later days he used to be seen, visiting patients, mounted on a shaggy pony. His professional dress was a greatcoat, so frayed by time and weather that its original colour was undiscernible, and he wore a yellow wig."⁵

In the absence of local medical practitioners, it was necessary that the clergyman and the laird should know something about medicine, and they had often picked up some rudiments of this during their college course. In the case of the wealthy, physicians and surgeons were frequently brought from a long distance to attend during an illness, while the great nobles and the Highland chiefs had their private medical attendants, who could give assistance to the poor retainers of their patrons.

Drugs
expensive

An indication of the drugs imported into Scotland in the early part of the 17th century is afforded by a book of the rates of customs and valuation of merchandises imported into Scotland in the year 1612.⁶ The list contains

¹ Chambers: "Domestic Annals of Scotland," Vol. II., p. 393.

² Chambers: *Op. cit.*, Vol. III., p. 407.

³ Miscellany of the Spalding Club, Vol. II., p. 5.

⁴ Chambers: "Domestic Annals of Scotland," Vol. I., p. 299.

⁵ E. H. B. Rodger: "Aberdeen Doctors," 1893, p. 25.

⁶ "Ledger of Andrew Halyburton, 1492-1503," Edinburgh, 1867, p. 297.

the names of over 220 different medicinal and chemical substances, of which about a fourth are still to be found in the British Pharmacopœia. The list includes a considerable number of medicinal metals and salts.

The prices of drugs must have been considerable, judging from the high rate of duty imposed upon them. For example, aloes had to pay 24s. per pound weight, opium £8, petroleum 20s., sulphur 8s., benzoïn £4, cardanoms 30s., nux vomica 6s. and senna 27s. The list includes numerous remedies which are not now employed, such as oil of scorpions, mummy (upon which the duty was only 8s. per pound), and a resin known as dragons' blood. The surgical instruments listed are four in number—billetts scives, incisionn shearis, turcasses and tripans. The duty payable for a trepan was 30s.

The skill of the Edinburgh surgeons was apparently considered greater than that of those in Dundee, which was in the 17th century the second town in Scotland, for in 1614, Alex. Smyt brought an action against Jon Fordyce, chirurgian, of Dundee, who had undertaken to cure a wound in the left arm of Martha Chalmeris, spouse of Smyt. At the end of the cure the arm was "so impotent and mutilate" that it hung down and could not be lifted to her head. She had consequently been taken to Edinburgh, where James Skaithmure, one of the principal surgeons there, had not only healed and cured the arm, but had in a rather unprofessional manner "declaryit that the said Jon haed not rytlie understuid the said hurt and haed putt the same in worss estate." Jon Fordyce was, however, absolved by the Dundee magistrates from the consequences of the action, and received a fee for his part of the cure amounting to £40 money, with a boll of wheat and two bolls of meal.

High repute
of Edinburgh
surgeons

There are other entries in the court books of Dundee showing that Jon Fordyce received on other occasions the respectable fees of £5 for a broken leg, £10 for a "grit wound" in the left hand, and £20 for a broken thigh.¹

A Dundee
surgeon

A considerable amount of information in regard to medical practice in Fifeshire is obtained from the diary of Mr. John Lamont of Newton, covering the years 1649 to 1671.² The diarist set down from time to time, and often from day to day, notes of occurrences, sometimes of national importance, and sometimes concerned with local events. He chronicles the deaths of many important people in Fifeshire, mentions such matters as the texts of sermons he has heard, describes in great detail the intimate affairs of his neighbours, such as the prices they paid for their houses, and records scandals in regard to them with complete *naivete*.

Medical
items in
John
Lamont's
diary

At the time with which he deals, each of the towns in Fifeshire appears to have been provided with its physician or apothecary, who had either served an apprenticeship or sometimes held an M.D. degree from some foreign university. The minister and Kirk Session exercised a great amount of power over social affairs, and in 1650 the Kirk Session of Largo, becoming dissatisfied with the practice

¹ Buist: "Dundee Doctors in the Sixteenth Century," *Edinburgh Medical Journal*, June, 1930.

² Lamont: "The Diary, 1649-1671," Maitland Club, Edinburgh, 1830.

of an Englishman named Hollande, who was settled in the place, took the high-handed action of intimating an excommunication against this Hollande "wha gaue him selfe fourth to be a phesitian, he being onlie ane impostor and decauer, that the people might not haue any dealing with him in the meater of physicke."¹

Diseases
prevalent
in Fife

Among the diseases which are mentioned from time to time as being frequent, are the Irish Aygo "which was a terrible sore paine of the head, some saying that ther heads did open." This was very rife about 1650 in the parishes near Largo, and was probably what we should call influenza.² Purpie fever is mentioned from time to time as occurring in small epidemics, and was a very fatal malady—probably typhus fever. James Lundy died in 1664 of a cancer in his throat as was supposed; "for about 3 monthes before his death, he could eate no bread, because of the straitnes of the passage in his craige."³

Scrofula

The cruells, which apparently was scrofula, is mentioned several times: thus, Eupham Lundy died of this disease in her knee after an issue which ran for some years.⁴ In 1660, Lady Wemyss took her daughter, the Lady Buccleuch, "who had the Cruells in hir arme," up to London to be touched by his Majesty King Charles II.⁵ As this was done on June 18th, twenty days after the king had entered London at the Restoration, it was probably the first case of scrofula treated by this king, who afterwards made "touching" for scrofula a kind of religious ceremony, and dealt with many thousands of sick persons in this way.

Obstruction

The case is mentioned of the son of Dr. Bethun, a physician practising at Perth, who had come to reside near Cupar in 1663; this youth, about 16 or 17 years of age, died suddenly of a stoppage of the bowels, and on a post-mortem examination being carried out by Mr. James Callendar, the local apothecary, there were found impacted together three lumps, fleshy without and like a stone within, and in each of them a plum stone, the boy having had the habit, in eating plums when he was a child, to swallow the stone; the father professed that he had never seen the like ever since he had any insight in physic.⁶

A country
practi-
tioner's
training

The social status of medical practitioners is sufficiently indicated by several facts which the diarist mentions in regard to John Gourlay, John Makgill and some others. John Gourlay was second son of the Laird of Kincaig, and, in 1654, went to Edinburgh to be bound prentice to Patrick Hebron, potingar (apothecary), in that city.⁷ His apprenticeship apparently lasted three years, for, in the end of 1657, he accompanied the Earl of Wemyss to London with the object of completing his studies. From London he went to France, and about one year later returned to Kincaig.⁸ He settled in Elie as a potingar, and there, in 1660,

¹ Lamont: "The Diary, 1649-1671," Maitland Club, Edinburgh, 1830, p. 21

² Lamont: Op. cit., p. 20.

³ Lamont: Op. cit., p. 171.

⁴ Lamont: Op. cit., p. 171.

⁵ Lamont: Op. cit., p. 122.

⁶ Lamont: Op. cit., p. 167.

⁷ Lamont: Op. cit., p. 81.

⁸ Lamont: Op. cit., p. 103.

married Margret Sharpe, second daughter of the deceased Dr. Sharpe of Edinburgh.¹ She was sister to the wife of the minister in Elie, which probably accounts for the fact that the said John appears somewhat easily to have made satisfaction to the church for irregularity of life since he settled in the place.

Some of his cases were treated in co-operation with Dr. Martin, who practised at Pittenweem, and who, as we learn from the candour of the diarist, was also a person showing considerable levity of conduct. In 1662, Dr. Martin and John Gourlay embalmed the body of the young Earl of Balcarres. It is noted that he was a boy of 10 or 12 years old and that in his heart, after death, was found a notched stone of the bigness of one's five fingers (possibly calcified pericarditis).²

In the same year these two practitioners had a difficult and unsuccessful case: A fatal bite the mother of John Taite, gardener, in Balcarres, was bitten through the arm by a puggy (monkey); the wound bled so that it could not be stemmed by Dr. Martin and John Gourlay, and she died within a few days.³ Whatever their skill as physicians may have been, surely they cannot have been very capable anatomists and surgeons!

In 1664, John Gourlay had a large account for drugs, attendance and bowling (embalming) of John Lundy, laird of that ilk. The laird had had a long illness and had also been attended by other doctors of neighbouring towns, for Drs. Cuninghame, Sidsfer and Martin received respectively 28, 20 and 23 dollars, and Mr. G. Pittillocke 20 dollars for attendance, while the account of Gideon Sword for "droggs" amounted to £16 or thereby.⁴

John Gourlay died suddenly in 1667, at his house in Elie, and it is distinctly hinted by the diarist that his death was in the nature of a judgment upon him for his action one week previously in the sheriff court at Cupar in regard to a fee of £115 Scots incurred by Bessy Barclay of Largo.⁵ Gourlay, along with Mr. Arthwr, apothecary in Wemyss, and John Bett in Elie, the apprentice of Gourlay, had treated the leg of Bessy Barclay, promising that he would take nothing unless the leg was completely cured. A new issue had been made at the ankle, and the leg, it was alleged, was no better, but worse. The medical attendants also affirmed on oath that for the space of seven weeks one of them was at Largo every day to attend the leg, whereas the said Bessy acknowledged that they came frequently but not every day. Throughout the notes of the diarist in regard to Gourlay, there is traceable a strong undercurrent of disapproval.

An issue in the leg

Another practitioner of the district was Mr. John Makgill, M.D., who was at first minister of Dinbougge, transferred in 1654 to the important charge of Cupar. After he had been nine years at Cupar, political changes introduced the episcopal form of church discipline. To this Makgill would not submit, and accordingly

John Makgill, minister and doctor

¹ Lamont: "The Diary, 1649-1671," Maitland Club, Edinburgh, 1830, p. 129.

² Lamont: Op. cit., p. 156.

³ Lamont: Op. cit., p. 154.

⁴ Lamont: Op. cit., p. 175.

⁵ Lamont: Op. cit., p. 202.

“he was lowsed from his chairge.” In February, 1663, determining to betake himself to medicine, he accompanied the Earl of Leven to London, and afterwards passed over to France. He must have been a man of parts, for about Lammas (August), 1663, after barely six months’ absence, he returned from France, having graduated doctor of physic. As indicative of the outward appearance of the doctor and the minister respectively in the 17th century, it is recorded that “he came home in a gray sute, bot went abroad in black apparell.”¹

Medical practice among his former parishioners evidently proved eminently successful, for in 1667 he was able to purchase the lands of Kembock at a cost of 25,000 merks Scots (nearly £1400 sterling),² which was worth the annual income of 1400 merks. In 1668, it is briefly recorded that “Mr. John Makgill, of Kembock in Fyffe, married the old Lady Vnthanke; the mariage feast stood att Vnthanke.”

Dr. Balfour was physician at Laleathin in Fife, and died in 1665. Andro Sword, who was apothecary in St. Andrews and son of the provost of that town, died in 1667 in an epidemic of purpie fever. Dr. Sydserf, who was practising as a physician in 1658, was a son of Bishop Sydserf of Brechin.

Quackery
rampant

Flagrant quackery was common in Scotland during the 17th century, and the folk-medicine which had been handed down by tradition among the common people was, in many cases, quite as futile as the nostrums sold by the quacks. The two following instances give an idea of the blatant fashion in which it was possible for travelling mountebanks to practise at this time.

Lamont, in his diary, under the date December, 1662, describes a mountebank John Ponthus, who practised chiefly in Fifeshire, but who also obtained sanction to set up his stage from time to time in the larger cities:—

“Ponteus, the montebanke, was now the thrid tyme in Scotland, viz. 1. in Anno 1633; 2. in An. 1643; and now in An. 1662 and 1663. Euery tyme he had his publicke stage erected, and sold theron his droggs to the peopell: the first tyme for 1 lib., the 2. tyme for 1 lib. 9s., the thrid for 18 pence. Each tyme he had his peopell that played on the scaffold, ane ay playing the foole, and ane other by leaping and dancing on the rope, etc. The two last tymes he was hire, both his printed peapers and his droggs were one and that same. The last tyme he was hire, he was att Edb.³ Stirling, Glasgow, Perth, Cuper of Fyfe, and St. Andrews, and in the end of Dec. and the two pairt of Januar 1663, he had his stage, at one and the same tyme, at Cuper and St. Andrews, viz., at St. Andrews on Moneday and Saterdag, and att Cuper on Tuesday, Wedens. and Thursday.”⁴

¹ Lamont: “The Diary, 1649-1671,” Maitland Club, Edinburgh, 1830, p. 160.

² Lamont: Op. cit., p. 199.

³ “Grants libertie to Jon Ponthus, professor of physick, to build a stage doum about Black freir wynd head, for publick view, they acting no obscene thing to give offence.” *Records of Edinburgh*, 5th June, 1663.

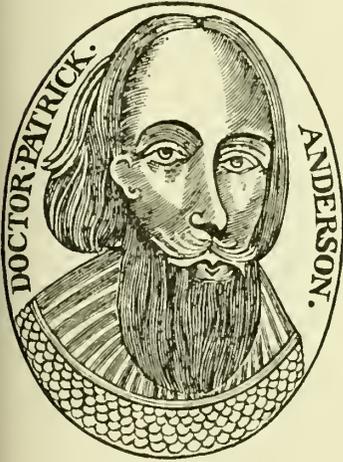
⁴ Lamont: “The Diary, 1649-1671,” Maitland Club, Edinburgh, 1830, p. 158.

The following notice probably refers to Cornelius a-Tilbourne, whose appearance in Edinburgh is mentioned on *page 261*.

“About the same tyme, ther was ane other montebancke, a High German, that came to this kingdome, that had the like sports and commodities for to gaine money. He was att Edb. in likemaner twyse; as also att Aberdeine and Dundie; he likewyse had the leaping and flying rope; viz., comeing downe ane high tow, and his head althe way downward, his armes and feite holden out all the tyme; and this he did diuers tymes in one afternoone.”¹

In a higher grade of society than those who were duped by the mountebanks, or who practised the folk-medicine of their ancestors, recourse was had to the

apothecaries and physicians found in the towns. In country places, especially in the north of Scotland, access to these was impossible because of the difficulties of transit that have been described. Moreover, the general character and attainments of many such practitioners did not inspire great confidence among the people in their immediate vicinity. It was natural, therefore, that medicines which were found to be effective obtained a great reputation, and could be sold at a high price by persons holding the secret of their composition.



DR. PATRICK ANDERSON
(From an old advertisement)

An interesting proprietary remedy of this kind, introduced early in the 17th century, was Anderson's Scots Pills. Dr. Patrick Anderson was a physician of considerable reputation who practised at Edinburgh, London and Paris, and in a little book called "Grana Angelica," which he published

Anderson's
pills

in 1635, regarding the virtues of the pills, he speaks of having got the receipt for them in Venice about 1603. He is described in one of his books as physician to Charles I., and this king caused Anderson's portrait to be painted by Van Dyck.

The pills enjoyed a great repute in the 17th century; indeed, several men, who were early principals and regents in the Town's College at Edinburgh, wrote elegant Latin verses on their usefulness, which Anderson published at the beginning of his "Grana Angelica." A couplet by John Adamson, who was principal of the University in 1623, runs as follows:—

“Angelice quicunque volet producere vitam,
Grana Andersoni comparet Angelica.”

These pills were widely used for 300 years, and were still on sale in the year 1910.² Chambers, writing in the year 1824, says: “As is well known,

¹ Lamont: "The Diary, 1649-1671," Maitland Club, Edinburgh, 1830, p. 159.

² Anderson: "Grana Angelica," Edinburgh, 1635; and Wootton: "Chronicles of Pharmacy," London, 1910, Vol. II., p. 168.

the country people in Scotland have to this day a peculiar reverence for these pills, which are, I believe, really a good form of aloetic medicine," and he mentions that in his time they were on sale on the second floor of a tenement in the Lawn Market, dated on the lintel 1690, where portraits of Anderson and his daughter were preserved—"the physician in a Vandyke dress, with a book in his hand; the lady, a precise-looking dame, with a pill in her hand about the size of a walnut, saying a good deal for the stomachs of our ancestors. The people also show a glove which belonged to the learned physician."¹



GIDEON ELLIOT

(Original portrait in the Royal College of Surgeons, Edinburgh)

After Anderson's death, the pills were sold in Edinburgh by his daughter, Miss Catherine Anderson, who communicated the secret to Thomas Weir, a surgeon in Edinburgh. Subsequently by a regular series of assignments, they came down to a firm of Edinburgh chemists who were still selling them in 1910. Another branch of the family in London, through James English and his descendants, continued the manufacture, and the writer has seen the original receipt for the pills, which was in the possession of Mr. Michael Duke. The pills originally contained

¹ Chambers: "Traditions of Edinburgh," Edinburgh and London, 1912, p. 27.

some 40 ingredients, and, by various processes of mixing, steeping, boiling, straining, etc., their preparation took four days to accomplish. They are represented in most of the official pharmacopœias of the present day, the *pilula aloes et myrrha* of the British Pharmacopœia containing their essential ingredients.

An indication of professional fees charged at the end of the 17th century may be gained from two examples. In 1689, Dr. David Mitchell, of Edinburgh, under sanction of the Privy Council, undertook the charge of Alexander Irvine, of Drum, in Aberdeenshire, a mentally defective person. He hired some additional rooms and made the necessary furnishings, thus establishing one of the first nursing-homes on record. After one month, however, with Dr. Mitchell, the Laird of Drum was persuaded by Marjory Forbes to marry her, and left his medical protector. Dr. Mitchell was allowed by the Lords of the Privy Council a sum of £500 Scots, or £41 13s. 4d., in addition to twenty pieces for a professional visit to the laird in Aberdeenshire.¹

Professional
fees

The Earl of Home, in 1695, was placed under arrest and ordered to repair to Edinburgh Castle. As he represented his indisposition of body to be such that this was impossible, the Privy Council ordered Sir Thomas Burnet, the king's physician, and Gideon Elliot, chirurgion, to proceed to the Hirsell in Berwickshire and report upon the Earl's state of health. The doctor and surgeon reported in such terms that the Earl was allowed to remain at his house, the Hirsell, and for their pains in travelling 50 miles and back and giving this medical report, Dr. Burnet was allowed 200 merks (£11 2s. 2d.), and Mr. Gideon Elliot 100 merks (£5 11s. 1d.).² The relative importance of the physician and surgeon towards the end of the 17th century may thus be estimated.

Military Medicine and Surgery

Scottish military surgeons, during the 17th century, appear to have occupied a position of good standing and to have been well paid. In 1644, four surgeons were appointed to the army, each to have charge of two regiments forming a brigade in the army sent into England. Each of these was provided with two surgeon's mates. The names of the surgeons were David Kennedie, James Ker, Thomas Kincaid and Nehemiach Touche. Each of the surgeons received an allowance of £15 for furnishing his "kist." The pay was at the rate of 5s. daily for a surgeon, and 4s. for his two mates, with an additional allowance of 3s. daily for their three riding horses, and 2s. 6d. for two baggage horses to carry their equipment.³ In 1646, the pay was raised so that the surgeons, of whom one was now allowed to each regiment, received 20s. daily, this being the same rate as that for a Lieutenant of Foot and an Ensign of Dragoons.⁴

Military
surgeons in
the Scots
army

In 1649, when the Scottish army was being re-formed in Perth and the neighbourhood, a generous scale of allowances was sanctioned, and the army appears to have been well equipped, although it met with disaster at Worcester

¹ Chambers: "Domestic Annals of Scotland," Vol. III., p. 22.

² Chambers: Op. cit., Vol. III, p. 117.

³ "Acts of the Scottish Parliament," Vol. VI., i, p. 74.

⁴ Op. cit., p. 620.

two years later. Among its general officers were two surgeons-general, each of whom was promised £40 per month. It may be mentioned in passing that each of eight ministers, similarly classed as generals, received £66 13s. 4d. monthly, while the army, which set out with high hopes for a premature Restoration, included a "writer of the History of the Times," at a salary of £200 per month.¹



RICHARD WISEMAN (1622-1676)
(From the original in The Wellcome Historical Medical Museum)

During the 17th century, surgery appears to have been of a rough and ready type, although no doubt gradual progress was made. Most of the foundation hospitals which had existed before the Reformation had fallen into neglect, or their buildings and revenues had been appropriated by the proprietors of neighbouring lands, or by persons possessing sufficient influence with the reforming powers; and the voluntary hospital movement of the 18th century had not yet begun. There were thus few facilities available for surgeons who wished to improve their methods.

¹ "Acts of the Scottish Parliament," Vol. VI., ii, p. 448.

As an illustration of surgical practice at its best, a few quotations may be given from Richard Wiseman, "the father of English surgery." Wiseman accompanied Prince Charles (later Charles II.), from Holland to Scotland in 1650, as his medical attendant and surgeon to his troops, and took part in the operations against Cromwell, which ended with the battle of Worcester. He practised for about a year in Stirling and Perth, for, after the disaster at Dunbar, Charles was still left with a royalist army in the neighbourhood of Perth.

Richard
Wiseman

Speaking of the type of wounds with which surgeons then had to deal, and which were found in the Covenanters who had managed to escape from Cromwell's horsemen at Dunbar, Wiseman says:—

"I shall now consider of Wounds with losse of Substance made by Bill, Pole-axe, Sword, etc., some cutting twice or thrice in one or near one place, whereby the Wound is large, transverse, yea and oblique, at the same time, and the Lips contracted various ways, and so the Cure is rendred much more difficult. These kind of Wounds are not so often seen in times of Peace, but in the Wars they are frequent, especially when the Horse-men fall in amongst the Infantry, and cruelly hack them; the poor Souldiers the while sheltering their Heads with their Arms, sometime with the one, then the other, until they be both most cruelly mangled: and yet the Head fareth little the better the while for their Defence, many of them not escaping with lesse than two or three Wounds through the Scull to the Membranes, and often into the Brain. And if the man fly, and the Enemy pursue, his Hinder parts meet with great Wounds, as over the Thighs, Back, Shoulders and Neck. . . . At Sterling in Scotland Mr. John Chase, Apothecary to his Majesty, helped me in the like work. One of the Souldiers had such a gash thwart the Nape of his Neck, that it was a wonder to us he lived. His Wound was full of Maggots; and so were those of all the rest that were inflicted on the Hinder parts, they having been some days undrest."¹

Incised
wounds

In discussing wounds of the brain, Wiseman gives, among others, the following instance of success following trephining. The servant maid must have been a hardy lass, to be able to attend him daily as an out-patient after a trephine opening had been made in her skull. The Mr. Penycuke, whom Wiseman mentions, was Alexander Pennycuik, who entered the Edinburgh Incorporation of Surgeons and Barbers in the year 1640. His father was the Laird of Pennycuik, and Alexander sold this estate and bought Newhall in Midlothian. He had been surgeon to General Banner in the Thirty Years' War, and was, at the time of his connection with Wiseman, surgeon-general to the Scottish troops. (*See also* Chapter XI, *page* 249).

Wound of
the brain

"At Sterling Mr. John Chase was present when a poor Servant-maid came to me to be drest of a Wound she had received on her Head by a Musket-shot, in the taking of Calendar-House by the Enemy. There was a Fracture

¹ Wiseman: "Severall Chirurgicall Treatises," London, 1676, p. 348.

with a Depression of the Skull. I set on a Trepan for the elevation of the deprest Bone, and for discharge of the Sanies. She had laboured under this Fracture at least a week before she came to me, yet had none of those Symptoms aforementioned. But after Perforation, and raising up this deprest Bone, and dressing her Wound, she went her way and came daily thither to be drest, as if it had been onely a simple Wound of the Hairy scalp. Mr. Penycuke, an eminent Chirurgeon of that Nation, did assist me in this work. I think the Brain itself was wounded. I left her in his hands, who I suppose finished the Cure."¹

Cause of
poisoned
wounds

The following quotation illustrates a point upon which Wiseman and his contemporaries often insisted, that gunshot wounds were not poisonous because of anything connected with the powder, but that their tendency to inflammation was due to failure on the surgeon's part to purify the wound properly:—

“Nay, while any of the Rags remain in the Wound, it will never cure: but the extraneous bodies drawn out, there is little difficulty in the healing these Simple Wounds, if drest rationally.”

“An Instance whereof I shall give you in a poor Souldier, who was shot at the Castle of Dunbar with a Musket-bullet a little above the left Clavicle, in amongst the Muscles of that Scapula. The Bullet was drawn out by one of my Servants, and the Wound drest up with Digestives. But some days after, he being brought to Saint-Johnston's (*Perth*), I found it inflamed and very much swelled. We dressed it up according to the method set down in this Treatise; but it apostemated, and mattered very much. After several unsuccessful Applications, I made an Incision by the side of the Scapula into the Cavity, and pulled out the Rags that had been carried in by the Shot: and from that time all Accidents ceased, and the Wound cured soon after. But if such be handled as some have lately taught, they are so many poisoned Gun-shot Wounds.”²

Wounds of
the chest

Gunshot wounds of the chest were apparently treated with success in Wiseman's time, as the following quotation shows. He seems somewhat sarcastic as to the great cures performed by the Scottish leeches in such cases by virtue of balsams given internally:—

“From the Defeat of the Scottish Army near Dunbar there came many of the wounded to Saint-Johnston's (*Perth*), and amongst them there were severall wounded into the Breast. They who were so shot as to have the Ribs broken, were in extreme Pain from the Shivers: whereas the rest whose Bones were not hurt had scarce any Pain at all, but what proceeded from Difficulty of breathing; they all coughing up a stinking Sanies both before and after the separation of the Sloughs. One of them cought a very great proportion daily of thin Matter, of a brown colour and ranck smell. None but this died under my hands: the rest after some while retiring to their homes, where (as I have often heard them say) their Leeches performed great Cures, by virtue of some Plants which they gave internally, and which with Fats they made Balsams of. Yet I believe this man died tabid.”³

¹ Wiseman: “Severall Chirurgicall Treatises,” London, 1676, p. 401.

² Wiseman: Op. cit., pp. 410 and 411.

³ Wiseman: Op. cit., p. 436.

Another military officer in Scotland was Thomas Sydenham, who acted as captain and incidentally as surgeon of a troop of horse in Cromwell's army during 1651. Sydenham mentions, in the "Anecdota Sydenhamiana," that colic was troublesome among his men, and that he used more than a gallon of *tinctura alexipharmaca* for its relief.

Thomas
Sydenham

After the middle of the 17th century, Sydenham, in London, introduced a new method of treating fevers. Hitherto, it had been the custom to treat the patient in a fever by heaping clothes upon him in bed, closing up the room in which he lay, lighting a large fire, and supplying the patient with cordials and stimulants. Sydenham, however, insisted on opening windows, banishing fires and providing only the ordinary bed-clothes. The sick man was to be well supplied with bland fluids, of which Sydenham specially commended small beer, and in the case of smallpox he recommended the use of syrup of white poppies, and of a vomit of antimonial wine, as well as blood-letting in moderate degree, according to circumstances.

In 1687, Sydenham was visited by Dr. Andrew Broun, of Edinburgh, who, in 1691, published a small book called "A Vindictory Schedule concerning the New Cure of Fevers." Broun, who is commonly called "Dolphinton," from his estate in Lanarkshire, was an Edinburgh physician, and spent several months as a pupil of Sydenham, whom he eulogises in his book. The book provoked a spirited controversy in Edinburgh medical circles of the time, and in the Royal College of Physicians at Edinburgh there are preserved some 14 pamphlets, published between 1691 and 1709, of refutations, defences, letters, etc., in regard to the new method of Sydenham's treatment, which Broun strove to introduce. The most interesting of these is one of 1692, entitled "In Speculo teipsum Contemplare," an imaginary and very abusive dialogue between Dr. Brown and a hypothetical Dr. Black.¹

Visited by
Andrew
Broun

The general contention on the part of Andrew Broun and his supporters, following Sydenham, was that in fevers cathartics gave relief, and might be combined with blood-letting and restrained by paregoric. Help might also be had from fixed and volatile salts as well as alkaline concretions, and by cupping, leeches and frictions. Vomiting, too, was supposed to aid the elimination of the poisonous material. For those persons who were able to go about, horseback exercise was recommended on account of its influence in "jogging the humours." Towards the end of this discussion, Dr. Archibald Pitcairne and Sir Robert Sibbald were brought in on a side issue, and the whole question seems to have caused great heart-burning for nearly 20 years in Edinburgh medical circles. It appears from incidental references in these controversies that the chief medical authorities used in Scotland at that date were the "Practice of Medicine," of Riverius, and the "Practice of Medicine" of Sylvius.

Who
introduces
Sydenham's
methods in
Edinburgh

¹ "Catalogue of the Royal College of Physicians Library," Edinburgh, 1898, pp. 199 and 497.

Highland Medicine

Medicine
in the
Highlands

Medicine, as practised in the Highlands and Islands of Western Scotland towards the end of the 17th century, presents several points of interest. Many of its practices were those of an old folk-medicine which had come down by tradition from ancient and, in some cases, from prehistoric times. Other measures used in treatment were apparently derived from southern or foreign sources, and had no doubt been introduced by the Highland practitioners of the middle and later ages who have already been mentioned. The people had to a great extent to rely upon remedies which were locally available, because owing to political considerations, the Highlands and Islands were to a large extent cut off from intercourse through the Lowlands with foreign countries.

Martin's
description

An account of medicine in the Western Islands was given by M. Martin, who collected information regarding this part of Scotland about the year 1688, and made a tour through the Islands, publishing his account in the year 1703.¹ Martin was a friend of Dr. Archibald Pitcairne, of Edinburgh, who apparently urged him to make this medical collection.

Members of
the Beaton
family

The family of Beaton in the 16th and 17th centuries had still numerous representatives practising in different parts. Fergus Beaton, who practised in the Island of Erisca, still possessed a family library of old writers translated into Gaelic. These included Avicenna, Averroes, John of Vigo, Bernard Gordon, and several volumes of Hippocrates.²

James Beaton, who was a surgeon in the Isle of North Uist, took part with the Macleans in an attack upon a vessel belonging to the Earl of Argyle, who was attempting to seize the Island of Mull.³

Neil Beaton was an illiterate member of the family who took to medicine only at the age of 40 years, and claimed a great knowledge of plants, from which he extracted the juices by a chemistry of his own and used them for curing diseases. Although he treated medical books with contempt, he had the boldness "to cut a piece out of a woman's skull broader than half a crown, and by this restored her to perfect health." His fame spread through the islands and the neighbouring part of Scotland, so that sick people came to seek his advice from a distance of 70 miles.⁴

Healing
wells

Among the remedies used by the Highlanders at this time, one of the most popular was the recourse to healing wells, which had been celebrated from remote antiquity. One of the best known was the Loch Siant well in Skye, to which people came from a great distance for the cure of headaches, stone, consumption, megrim, etc. It was customary in approaching the well to walk three times round it "dessil," that is, following the direction of the sun, then to drink the water, and on leaving to deposit some small offering on the stone covering the well.

Another celebrated well in Islay was reputed to have existed originally in Colonsay until "an imprudent woman happened to wash her hands in it and, that immediately

¹ Martin: "Description of the Western Islands of Scotland," London, 1703.

² Martin, *Op. cit.*, p. 89.

³ Martin, *Op. cit.*, p. 325.

⁴ Martin, *Op. cit.*, p. 198.

after, the well being thus abused, came in an instant to Islay." This well had a great repute for the cure of all diseases, and here sick people, who had made a vow to come to the well, after drinking took a turn sunways round it and left some small offering on the stone cover of the well. Even if the patient were unable to come to the well, it was considered effective to send a proxy who, after performing these acts, carried home some of the water to be drunk by the sick person.¹

Another ancient observance was used as an antidote to plague in men or cattle, both in the Islands and on the mainland. It consisted in sprinkling upon the people or the cattle infected with plague, water which had been boiled over a fire kindled according to the method used by primitive man. For this purpose all the fires in the parish were extinguished and 81 married men, the number thought necessary for effecting the purpose, took two planks of wood and, in relays of nine, were employed laboriously rubbing the edge of one plank against the other until the heat produced fire, from which each family was supplied with new fire to boil the water.²

Forced fire
superstition



STONE OF THE DOG, GLEN LYON

An ancient superstition in the central highlands was that according to the ease or difficulty with which a pregnant woman could pass under the horizontal limb, so would her trial be easy or difficult

(Photograph by Dr. N. D. Mackay)

consisting of boiling the patient's shirt and quickly replacing it upon him. An infusion of dulse was considered good for producing action both of the skin and bowels, while a poultice of the same sea-plant was applied externally for the cure of the "iliac passion." The foxglove was also applied in a warm poultice to remove the pains following after fevers. Poultices of nettles, mixed with white of egg or of the sea plant *linarich*, or of *Erica baccifera*, were applied to the head to promote sleep.

Another ancient observance which, however, is found in various medical writers of the Middle Ages, was the wearing by the islanders of a sealskin girdle for the cure of sciatica. The same remedy was used in Aberdeenshire for the whooping-cough.³

In the island of Skye, Martin records that the prevalent diseases were fevers, stitches, colic, headache, megrim, jaundice, sciatica, stone, smallpox, measles, rickets, scurvy, worms, fluxes, toothache, cough and quinsy. For these and other diseases the natives had a great variety of remedies.⁴

Diseases and
remedies in
Skye

For pleurisy, plentiful blood-letting was the ordinary remedy. For fevers, whey in which violets had been boiled was used as a cooling and refreshing drink, and for producing perspiration a simple form of wet pack was employed, con-

¹ Martin: "Description of the Western Islands of Scotland," London, 1703, p. 242.

² Martin, *Op. cit.*, p. 113.

³ Martin, *Op. cit.*, p. 65.

⁴ Martin, *Op. cit.*, p. 175.

For scarlet fever, which had appeared only recently in the Islands in Martin's time, a satisfactory cure was considered to be the drinking now and then of a glass of brandy, while a still more satisfactory cure of this disease in infants was supposed to be that the nurse should drink the brandy which "qualifies the milk and proves a successful remedy."

Blisters were raised when necessary by placing *Flamula jovis*, or spire-wort, cut small in a limpet shell, in contact with the skin, or by employing crowfoot in the same way. As a remedy against the stone, water gruel without salt, and wild garlic infused in water, were considered effectual. Against worms, infusion of tansy in whey was taken fasting.

Shunnis was a plant of high value as a remedy for coughs and colic, while hartstongue and maidenhair boiled in ale were used for cough and consumption. The hectic stone boiled in milk was used also for consumption. Deers' grease, the older the better, was rubbed into the soles of the feet, after bathing these in hot water, as a remedy for coughs and hoarseness, as well as for "vapours" in women.

A remedy for jaundice was carried out as follows: The patient's back being bared, the 11th vertebra was marked and the operator thereupon applied a red-hot pair of tongs to the skin beside it.

For "iliac passion" or "twisting of the guts," a cataplasm of hot dulse, applied several times to the lower part of the abdomen, was regarded as a satisfactory treatment. In resistant cases more energetic treatment was practised, by causing the patient to take a draught of cold water containing oatmeal, after which he was hung up by the heels for some time.

For a fracture, the highlanders were wont to apply white of egg with barley-meal to the limb, which was afterwards tied up in splints. The splints were from time to time taken down and an ointment containing betonica, St. John's wort, and golden rod, mixed with sheeps' fat or fresh butter was spread on a cloth and laid on the injured part.

The fat of sea fowls was an approved vulnerary, and, to ripen an abscess, an ointment made of jacobea, cut small and mixed with fresh butter on a hot stone, was applied.

A traditional remedy for lowness of spirits is worth mentioning, as it had been practised by the hereditary blacksmith at Kilmartin through 13 generations. The cure may be given in Martin's own words.

"The patient being laid on the Anvil with his Face uppermost, the Smith takes a big Hammer in both his hands, and making his Face all Grimace, he approaches his Patient, and then drawing his Hammer from the Ground, as if he design'd to hit him with his full Strength on the Forehead, he ends in a Faint, else he would be sure to Cure the Patient of all Diseases; but the Smith being accustomed with the performance has a dexterity of Managing his Hammer with Descretion; tho at the same time he must do it so as to strike Terror in the Patient, and this they say has always the design'd effect."

A cure for
melancholy

CHAPTER XI

THE SURGEONS OF EDINBURGH IN THE SEVENTEENTH CENTURY

AFTER the surgeons and barbers had obtained the Seal of Cause, various enactments were made from time to time confirming or extending the privileges granted by this. It is convenient to summarise these here.¹

Enactments
in favour of
Edinburgh
surgeons

The Seal of Cause was confirmed by James IV. under the Privy Seal at Edinburgh on 13th October, 1506.

Mary Queen of Scots, again confirmed this, and exempted the surgeons from bearing armour in raids and wars, as well as from sitting on inquests or assizes in criminal or civil actions. This edict was made at Edinburgh on 11th May, 1567.

James VI. again ratified all the privileges and confirmed Queen Mary's letter of exemption on 6th June, 1613.

The Town Council passed an Act forbidding any who had not been duly approved by the surgeons from practising the art of surgery within the burgh, on 10th September, 1641.

An Act of the Scottish Parliament, in favour of the surgeons and barbers of Edinburgh, ratifying all their privileges and giving the deacon and masters of the surgeons the power to take and apprehend all persons exercising the surgical art who were not freemen of the craft, and to fine them £20 Scots for contravention, was passed on 17th November, 1641.

An Act of the Town Council, confirming the rights conveyed by the above-mentioned Act of Parliament, mentioning that the apothecaries were not exempt from these, and making an attempt to define the conditions which naturally called for the surgeon's art, was passed on 27th June, 1655.

An Act of the Town Council, regulating the practice of apothecaries and surgeon-apothecaries in the Burgh of Edinburgh, and reaffirming that no one should be admitted to practise the art of apothecary unless he had been examined by members of this body, was passed on 25th February, 1657. In this pronouncement it is distinctly stated that there is no intention of erecting the apothecaries into a corporation, but that the arrangement is merely made for the improvement of the apothecaries' art and the good of the people.

¹ See "Collection of Royal Grants and other Documents relative to the Royal College of Surgeons of Edinburgh," Edinburgh, 1818.

Adoption of
pharmacy
by the
surgeons

An Act of the Scottish Parliament, in favour of the surgeons and barbers in relation to the art of pharmacy, confirming all previous privileges to this incorporation and joining them with the brotherhood of the surgeon-apothecaries and apothecaries in powers to search out irregular practitioners and fine them, was passed on 22nd August, 1670.

In 1685, the Parliament ratified a decree of the Lords of Session in favour of the apothecaries of Edinburgh, declaring surgery and pharmacy to be distinct employments, and affirming that they should not be exercised by one and the same person within the city of Edinburgh.¹ This appears for a time to have freed the apothecaries from the surgeons, but the two bodies were again brought together ten years later.

The Scottish Parliament ratified a gift and patent granted by King William and Queen Mary, in favour of the surgeons and surgeon-apothecaries, adjusting some of the differences between them, confirming their privileges and providing that their privileges should be nowise hurtful or prejudicial to the erection of the Royal College of Physicians, and this was passed on 17th July, 1695.

It appears from proceedings in the Scottish Parliament that, in 1695, no one was allowed to practise surgery or pharmacy in Edinburgh, the Lothians, Fife, Peebles, Selkirk, Roxburgh or Berwick unless he had been licensed by the surgeon-apothecaries of Edinburgh.²

A declaration by the Royal College of Physicians, adjusting differences with the surgeons in Edinburgh regarding the practice of pharmacy by the latter, was made on 22nd July, 1695.

An Act of the Town Council, in favour of the surgeon-apothecaries and apothecaries, mentions, on 24th June, 1696, that very few of this old fraternity are now living.

An Act of the Town Council, in favour of the apothecaries and surgeon-apothecaries, on 9th December, 1696, mentions that several persons within the burgh are practising the art of apothecaries and keeping open shops without any warrant, and forbids them to do so until they have made application for an examination by the visitors of the fraternity.

It appears, from a petition made to Parliament by the Royal College of Physicians in 1707, that the usual routine for a person desiring to practise in Edinburgh was to serve an apprenticeship to a surgeon, and thereafter pass a trial in surgery without having undergone any regular course of instruction.³

Royal
College of
Surgeons

The charter of erection of the guild or incorporation of surgeons into the Royal College of Surgeons of the City of Edinburgh, converting the members of the Incorporation into Fellows, and conceding them new privileges, was granted by George III. on 14th March, 1778. A further charter, in 1851, severed the connection of the Royal College of Surgeons of Edinburgh with the city as one of its trade guilds.⁴

¹ "Acts of the Scottish Parliament, 1685," Vol. VIII., p. 530.

² *Op. cit.*, 1695, Vol. IX., p. 508.

³ *Op. cit.*, 1707, Vol. XI., p. 124b.

⁴ Smith: "The Royal College of Surgeons of Edinburgh, Fourth Centenary," Edinburgh, 1905, p. 21.

After the recognition of the combined surgeons and barbers as one of the guilds of craftsmen in Edinburgh, a definite history commences, which has extended up to the present day. The united guild originally stood ninth or tenth in order of seniority, but, partly by virtue of its important nature and partly owing to the high social position of the surgeons included in it, the guild of surgeons and barbers gradually attained the first position. Under Gilbert Primrose as Deacon, in 1582, this craft took precedence as the first of 14 then in existence. Many of the surgeons were men of wealth and owned lands near Edinburgh, such as James Borthwick of Stow, Alexander Pennycuik of Newhall, and Christopher Irving of Bonschaw. During the 17th century, three Deacons of the surgeons, viz., James Borthwick, in 1661, Arthur Temple, in 1669, and George Stirling, in 1689, held the position of one of the two members returned by Edinburgh to the Scottish Parliament.¹

In 1670, the town of Edinburgh was allowed by Parliament to choose another "commissioner" (as members of Parliament were then called), in room of Arthur Temple, surgeon, because he was often called from his place in Parliament to attend sick persons.²

It should be mentioned in passing that the surgeons signed the National Covenant on 25th August, 1638, and ordained all their apprentices and servants to subscribe it as well, declaring that no apprentice or servant should be admitted in future except such as should subscribe the Covenant.

The place of meeting of the crafts in early times was Magdalen Chapel in the Cowgate, which belonged to the Guild of Hammermen. From the year 1581, also, the barber-surgeons appear to have held regular meetings, of which they kept minutes, and in this year the craft included 16 masters, together with their apprentices.

The earliest minute, dated 2nd February, 1581, contains the following names of members of the craft at that time :—

Earliest
list of
surgeons

The Nameis of ye Masteris :

Gilbert Primross, deckin	Patrick Martine
Noyer Brussate	Hendrie Blyth
Robert Henderson	Jhon Lowsone
Alexander Bruce	Hendrie Lumsdene
James Lindsay	Michall Bassetyne
Jhon Woddal	Alexander Fiddas
James Craig	Jhon Libbertoun
Alexander Tweedie	Jacobe Brun.

The Incorporation met four times in the year at the Deacon's house, but there were other meetings at the kirk and in the "ile" of St. Giles. The funds were originally kept by the simple method of putting the funds in a box which had two separate locks. The keys of these were entrusted to two different members of the incorporation, and the box was placed inside a larger "kyst" with a single lock, The funds

¹ Gairdner : " Historical Sketch of the Royal College of Surgeons of Edinburgh," Edinburgh, 1860, p. 10.

² " Acts of the Scottish Parliament," 1670, Vol. VIII., Appendix 3a.

of which the key was kept by a third member. The kyst was deposited for safe keeping in the Deacon's house. On one occasion, in 1592, the funds in the box amounted to "six new rose nobilis, twa auld rose nobilis, four four-pound pieces, ane fyve-pound piece and ane crown of the sone, two Scottis testamis, ane Inglis testem and ane half merk piece."

A misfortune befell John Nasmyth, Deacon in 1596, in connection with this box, which was broken by some "wiked person" and the contents, amounting to £45 6s. 8d. "theftuously stollen." Nasmyth was obliged to refund this money to the Incorporation, which, however, graciously permitted "that if the said John can get wit who has stollen the said money furth of the box, he will have . . . thereto as his own proper goods."

The
boxmaster

At a later date a special official was appointed, known as the "Boxmaster," to take care of this box and render account of the reckoning and payments of the Calling's money. In 1644, David Kennedy, who was one of the four surgeons appointed to the Scottish army about to invade England, happened to be boxmaster, and Andro Walker was deputed boxmaster "till it please God to return the same David back Again."

In 1678, James Hopkirk was boxmaster, and appears to have got into serious trouble with his accounts. When called upon to produce his accounts for the purpose of auditing, he made various excuses for delay, and on their finally being produced, they were found to be so complicated that a committee had to be appointed to deal with them and report to the Incorporation. The meetings of the committee were very lively and both the auditors and boxmaster had to be "fined for cursing and banning and for scandalous speeches."

Several items in the accounts had to be reduced, such as "the hiring of horses to the Lady Elphingston's buriall, their being no authority given;" "to deduce 20 shillings from the sum of £3 5s. paid to William Daes for wyne and aile, it being clear there were only two pynts of wyne and the aile drunken"; and "disallowed £3 4s. for four days' work to the men for riddling of lime, etc., and that for morning and evening drinks because included in the masons' general discharge."

In 1702, it was resolved that the boxmaster should in future be named treasurer.

The clerk

The Incorporation of Surgeons had another official, known at first as the "Clerk," whose duty it was to keep the minutes, and who obtained numerous fees and perquisites. The first clerk was a Notary Public named Adam Gibson, who was appointed in 1587. He was succeeded by Mr. Quhite, he by David Gibson, and he, in 1637, by Alexander Henryson. When Henryson demitted office in 1671, the Incorporation requested the Lord Provost, Sir Andrew Ramsey, to fill up the office, and Mr. Patrick Moubray was appointed clerk for life. Some time later, the office, which was apparently a lucrative one, was sold to the highest bidder for £185 sterling, but this arrangement proved unsatisfactory. In 1825, the title of this official was changed to that of secretary, and in 1861 it was decided that the secretary should in future be a Fellow of the College, who, however, would nominate a clerk, subject to the approval of the College, to perform the duties under his supervision.

The "Officer" of the Incorporation was an official mentioned in the Seal of Cause of 1505, whose duties were to collect the weekly pennies and to marshal the members in processions. For a time the last admitted master-surgeon appears to have acted as officer of the craft for the time being. In 1664, when the physic-garden of the surgeons was instituted, George Cathcart was appointed to perform the duties both of gardener and of officer. He threw up his appointment after holding it for 34 years, because the Incorporation, in 1698, decided that their officer should wear a livery coat with a silver badge, and this he indignantly refused to do. Another officer was found in the person of Andrew Raeburn, who was not affected by any such scruple. The holder of this post at the present day is the only official who is still called by the original title of his office. The officer

The method of admission to the craft was by apprenticeship, and the aspirant to practise surgery was required to have been apprenticed to a master-surgeon in Edinburgh for six years before he was admitted to examination. During the time of his apprenticeship he lived in the master's house. When he was apprenticed he paid 20s. to the Incorporation as well as 2s. for clerk's fees, and he apparently obtained the loan of the necessary instruments. At the end of his apprenticeship he might present himself for examination, or he might continue to act as an assistant to his master, being described as the "servand" of the latter. Before, however, he could qualify as a master-surgeon, he had also to become a burghess of the city.¹ Admission of apprentices

In the 16th century, when wars between Scotland and England were habitually in progress, the apprentices of Edinburgh were of great value for their military prowess, and some of their services with the surgeons on the borders have already been noticed. But after the union of the crowns of the two countries there was no further legitimate outlet for their combative ardour, and the apprentices of the various crafts in Edinburgh appear to have been a turbulent set, who constantly found excuses for riots and other disturbances of the peace. The surgeon-apprentices in the early part of the 17th century seem to have been particularly unmanageable. This had become so insufferable that on 7th May, 1612, there is a minute of the Incorporation in the following words:— Unruliness of apprentices

"Whilk day the Decone and brethrene under subscryvand beand convenit in the Decone's house, and respecting and considering the insolencie of thair servands and prenteisses, how thay ar sa gevin to licentiousness that thay will not be correctit, sa that not only in evil speeches but als be way of deid they will misserve thair maisteris and wilfullie gainstand thair will and correction, therefore it is statut and ordanit that nane of thair prenteisses or servands, prnt or to cum, sall use or weir ony dager, quinzard, or knyff except ane knyff to cut thair meit, wanting the point. Under the paine of tinsell of thair freedom and liberties of the said craft, and all utheris privileges and liberties that thai may enjoy throw thair maisters. And that nane of the saids prenteisses or servands miscall nor invaid thair maisteris or mastresses in tyme cuming under the paine forsaid."²

¹ Creswell: "The Royal College of Surgeons of Edinburgh from 1505 to 1905," Edinburgh, 1926, p. 17, *et seq.*

² Gairdner: "Early History of the Medical Profession in Edinburgh," Edinburgh, 1864, p. 13.

Convivial
meetings

From early times it was the custom for an apprentice, on admission to the craft, as specified in the Seal of Cause, to provide "the dinner to be maid to the maisters efter he be exemmit and admitted by them." The style of the dinner probably depended upon the generosity and means of the newly-admitted master, but later the amount expended was fixed at 40 pounds Scots. This custom was continued through the whole of the 17th century, but later it was decided to discontinue the practice, which was regarded as extravagant, and the banquet was limited to a pint of wine provided by each of the three examiners, and another pint provided by the entrant.

Other social gatherings of the surgeons and barbers took place in early days, and the favourite place of meeting was John Clearihue's tavern, "The Star and Garter," situated in Writers' Close, which was a favourite resort of the magistrates and leading men of the day. A vivid description of a meeting in this tavern is given by Scott in "Guy Mannering."

A receipted account (of the 18th century) signed by John Clearihue himself, bears evidence of the abstemious habits of the surgeons, for at one of their meetings held in No. 9 room, their libations for the evening were settled for the modest sum of £1 18s. 6d. Of this, 11 shillings was for supper, 18 shillings for three bottles of claret, one and sixpence for bread and beer, and three shillings and sevenpence for punch, porter, biscuits and a broken cup. It took two shillings and fivepence, however, to assuage the drouth of the officer, who appears to have been present, and two shillings to tip the waiter.¹ Other favourite places of meetings were John's coffee house at the north-east corner of Parliament Close, a favourite resort of judges and lawyers in the 18th century, Muirhead's coffee house, and the Laigh coffee house.

Free
admissions

The eldest son of any member of the craft might claim as a right to be admitted after due apprenticeship and passing of the examination. Sometimes the examination was dispensed with, as, for example, in the case of James Harvey (1612), who was admitted "in consideration of the good way in which he has already served her Majesty." John Pringel, in 1623, was similarly admitted a free surgeon on account of services in France and Flanders, where "he had become learned and expert in the art of Chirurgie." Similarly, Andrew Brown, in 1649, was admitted without examination "because of his known abilities and of his constant adhering to the cause of God in the midst of so many trials and temptations within the Kingdom of Ireland and transporting of himself and his wife and family to this Kingdom from thence."

The privilege was not, however, always granted when it was asked, as in the case of John Dickson, apprenticed to Archibald Hay, surgeon to his Majesty, who applied for admission to the craft by favour. The surgeons having raised some demur, the said John, apparently seeing little chance of his admission, sent them a message "that he would not give tuppens for any privilege they could afford him."

¹ Creswell: "The Royal College of Surgeons of Edinburgh, from 1505 to 1905," Edinburgh, 1926, p. 150.

It is quite clear from the terms of the Seal of Cause and from other early references that the Incorporation consisted of two crafts, the surgeons and the barbers, who combined for mutual support. The barbers practised certain arts of minor surgery, but were eligible to become surgeons. In 1588, a class of simple barbers was established, and these were permitted only "to clip, cow, shave and wash, and make aquavite only without any further liberty to use and exercise any part of the art of chirurgie." This admission of simple barbers was, however, discontinued in 1616.

The sum paid by surgeons upon admission to the craft was, up to 1616, three score pounds Scots, and by barbers forty pounds Scots. After this date, however, the admission fee of the surgeons was raised to a hundred pounds Scots. Admission fees

In 1648, the Incorporation was composed of 16 members, comprising six surgeons, four barber-surgeons and six members of the barber craft, still pursuing their studies in order to qualify themselves for the rank of surgeon.

In the 17th century a practice grew up of conferring honorary freedom of the Incorporation upon distinguished persons who were not surgeons. Thus, in 1671, Sir Andrew Ramsey, Lord Provost of the City, "an honest abill man," who had conferred numerous benefits upon the Incorporation, was elected an honorary freeman. In 1672, the same distinction was conferred upon the Duke of Lauderdale, and, at a later date, the Duke of Cumberland ("Butcher Cumberland"), on his return from Culloden, was made an honorary freeman of this as well as of the other crafts. In the last two cases the conferring of the freedom of the craft may probably be regarded as of the nature of making friends with the Mammon of Unrighteousness. Honorary surgeons

The first Doctor of Medicine to enter the Incorporation of Surgeons was Christopher Irving, who had graduated in Arts at Edinburgh in 1645, and later became a Doctor of Medicine at some foreign university. He entered the Incorporation of Surgeons in 1658. He was an author of some note in the 17th century, and was employed by the Town Council, in 1660, to translate from Latin into the Scots vernacular the Bohemian Covenant, for the use of the College of Edinburgh. In 1656, he published a treatise called "Medicina Magnetica, or the Rare and Wonderful Art of Curing by Sympathy." It was dedicated to General Monk, contained a collection of aphorisms, and revived some of the mystical doctrines of Paracelsus. He also wrote a drama in Latin, called "Bellum Grammaticale," intended to be a humorous exposition of the principles of grammar, and dedicated to Dr. George Sibbald. Also an "Historiæ Scoticæ Nomenclatura," on the explanation of Scottish names of persons and places, dedicated to the Duke of York. Christopher Irving

Irving was proprietor of the estate of Bonshaw, and at the time of the erection of the College of Physicians, in 1681, he fell foul of this body, whose control he resented, petitioning the Privy Council on account of his education, degrees, army commissions and general standing, that this College should not be allowed to interfere with him in the practice of medicine. This was granted by the

Privy Council, and by an Act of the Scottish Parliament in 1685, he was specially exempted as a physician from the control of the College of Physicians. Sir Walter Scott introduced him into "The Fortunes of Nigel," as contemporary with King James I., though this involves an anachronism of some half a century. He was the first person to enter the Incorporation of Surgeons after a crisis had occurred between the surgeons and barbers in 1657, so that he was described as "ane frie chirurgane" and the words "and barber," which occur in all previous minutes of admission, are not added either in his case or in the case of any later entrant.¹

Effects of
social
changes
on surgeons'
calling

About this time, a change had taken place in the nature of the surgeons' craft. Pharmacy was now taught along with the art of surgery, whereas previously a surgeon had sometimes been an apothecary as well, but, as a rule, had not. The apothecary's calling appears to have been regarded as of higher standing than that of the surgeon, if we may judge from the fact that James Borthwick, who had been a very prominent member of the Surgeons' Incorporation, was described on his tombstone as "pharmacopœus" only.² Troubles also arose in connection with the extension of the city, for the rights of monopoly possessed by the surgeons and barbers in Edinburgh did not extend to the Canongate and other suburbs. It must be remembered that, at this time, anyone who desired to practise medicine and surgery in Scotland might do so without let or hindrance, so long as he did not invade the district in and around Glasgow supervised by the Faculty of Physicians and Surgeons, or practise as a barber-surgeon in one of the burghs where a guild existed. The necessary qualification elsewhere consisted simply in the ability to obtain patients.



JAMES BORTHWICK'S TOMBSTONE IN GREYFRIARS CHURCHYARD, EDINBURGH

Note the 17th century representations of surgical instruments in the panels

From 1657 onwards, when Borthwick and Kincaid set up as surgeon-apothecaries, pharmacy had a greater attraction to the apprentices than the barber craft. Barber-surgeons who practised shaving, hair-cutting and minor surgery thus fell off in numbers, so much so that in 1682 the Town Council made a complaint to the Incorporation that there were only six barbers following the trade within the city walls.³

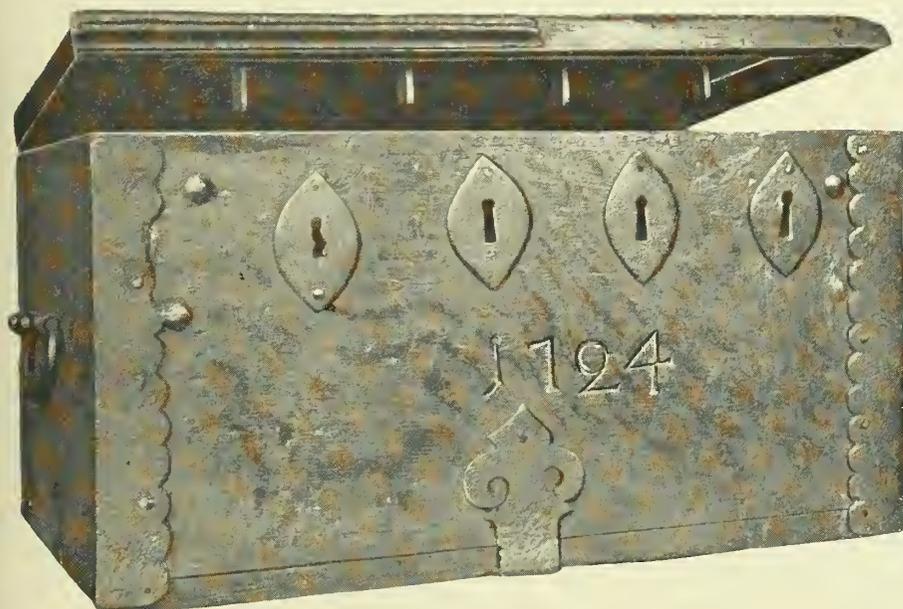
¹ Gairdner: "Early History of the Medical Profession in Edinburgh," Edinburgh, 1864, p. 21; and "List of Fellows of the Royal College of Surgeons," p. 14.

² Maitland: "History of Edinburgh," Edinburgh, 1753, p. 193.

³ Creswell: "The Royal College of Surgeons of Edinburgh from 1505 to 1905," Edinburgh, 1926, p. 103.

The citizens had thus to betake themselves to the suburbs in order to have their hair and beards trimmed, and the Town Council accordingly sent a message to the Incorporation of Chirurgeons that the latter must either receive into their freedom a sufficient number of barbers or the Town Council would be at the necessity of recognising persons outside the craft. Following upon this a number of barbers were admitted. The attitude of the surgeons towards these inferior members was, however, so oppressive that the barbers later rebelled, and, in 1718, as the result of an action in the Court of Session, the barbers were allowed to appoint their own preses and boxmaster (treasurer), and to have freedom in the management of their own affairs.

Decline of
the barbers



TREASURE CHEST OF SOCIETY OF BARBERS, AFTER THEIR SEPARATION
FROM THE INCORPORATION OF SURGEONS

(Original in the Royal College of Surgeons, Edinburgh)

The change in medical practice in Edinburgh at this time was a very complicated one. Simple barbers, as they were called, who had no desire to practise minor surgery, set up shops; simple apothecaries also, who did not practise surgery, possessed shops for the sale of spices, drugs and similar commodities. A careful watch was kept by the Incorporation of Surgeons upon these to see that the privileges of the Incorporation were not invaded, and

numerous prosecutions took place and fines were levied. The simple barbers, whose trade in wig-making at the end of the 17th century had, owing to the prevailing fashion, become very profitable, wished to be free of surgery and the surgeons; and accordingly, as the result of the action brought in 1718, a final cleavage between these two crafts took place. In 1682, the apothecaries had come under the protection of the College of Physicians, founded in 1681, and could to a large extent bid defiance to the surgeons, so long as they did not grossly offend by performing any serious operation.

The further history of the barbers is interesting as showing how changed circumstances lead to the decease of ancient corporations. The final separation took place in 1845, when the surgeons got a new grant of incorporation and were released from all obligations to the barbers in consideration of an annual payment of £10. The Society of Barbers received its death-blow from an Act of Parliament, in 1847, which abolished restricted trading; so that thereafter anyone who chose might put up a pole and practise the calling without joining the society. The last member was admitted to the society on 12th September, 1885, and the last meeting was held on 17th September, 1892.

End of their
Incorporation

At this meeting the whole society—a father and son—were present. They elected each other preses and boxmaster respectively, reappointed the clerk, and departed to meet no more. The preses died, the boxmaster left the country, and the clerk also died, leaving behind him the old oak treasure box, the minute books and the papers in his keeping. As the society in 1925 consisted of only one possible member, whose whereabouts was unknown, the court handed over the treasure box and papers to the custody of the Royal College of Surgeons, Edinburgh, which was regarded as the nearest representative of the defunct Incorporation.¹

The surgeon-
apothecary

In other parts of Scotland, the surgeon-apothecary, during the course of the 17th century, became the type of practitioner who looked after the health of the community and lost all connection with the calling of the barber. His training consisted solely in an apprenticeship, generally of five years, to an established practitioner, although, in the case of a man who wished to attain reputation and success in practice, he had usually taken occasion in his youth to hear lectures at one of the universities or in some Continental medical school.

Examina-
tions

On 22nd May, 1778, a charter was granted to the Incorporation, embodying it anew under the name and title of the Royal College of Surgeons of the City of Edinburgh, and thus the final separation from barbers on the one hand and apothecaries on the other was legally ratified. In 1798, the College petitioned the East India Company to recognise a diploma issued by the College as sufficient evidence of qualification for appointment to their service without further examination, and this request was granted. About 1808, the diploma was similarly recognised by the Army Medical Board after a revisal of the laws relative to examination in 1806.

¹ Scott Moncrieff: "The Incorporation of Surgeons and Barbers," *Edinburgh Medical Journal*, December, 1912, p. 524.

More stringent regulations regarding the diploma were made in 1816; and after the passing of the Medical Act of 1858, the College of Surgeons and the College of Physicians instituted a double qualification. In 1884, these two Colleges joined with the Faculty of Physicians and Surgeons of Glasgow to establish the Triple Qualification, by which the licentiates of all three bodies might have the qualification necessary for practice, viz., of holding a diploma in both medicine and surgery.

From an early period of its existence, the craft of surgeons and barbers had taken an interest in the study of anatomy, and had been

Early teaching of anatomy



JAMES BORTHWICK (1615-1675)

(Original in the Royal College of Surgeons, Edinburgh)

granted, in 1505, the privilege in this respect conveyed by the Seal of Cause. In terms of the Seal of Cause, instruction in anatomy was given by the members in rotation for more than a century, but when we come to the year 1645, we find, for the first time, a definite teacher of anatomy mentioned. In this year James Borthwick, a burgher of Edinburgh, having duly passed his examination, was admitted as a Master-Surgeon for the special purpose of "desecting of anatomie for the farder instruction of prentissis and servandis." Borthwick's admission was a special one: he paid 200 pounds of entry fee instead of the statutory 100 pounds (Scots).¹ Instead of the

James Borthwick

usual apprenticeship, he had served abroad as a surgeon along with Alexander Pennycuik.

Pennycuik was Deacon of the Craft in 1645, and had been surgeon to General Banner (Commander of the Swedish Forces in the Thirty Years' War), and later Chirurgion-General to the Auxiliary Scots Army in England during the Civil War, and to the Scots troops with Prince Charles in 1650.² A petition of 1663, which

Alexander Pennycuik

¹ "Records of the College of Surgeons," 20th March, 1645.

² "Works of Alexander Pennycuik," Leith, 1815, p. 2.



HOUSE IN DICKSON'S CLOSE, EDINBURGH
(From a sketch by James Drummond, R.S.A., in 1850)

Here, in 1647, "three rowmes of ane tenement" were taken as a Convening House for the Surgeons and Barbers.
The stair and walls are still standing (1931) though the timber front has been removed.

indicates the important military services of Alexander Pennycuik, was recommended by Commissioners after the Civil War for payment by His Majesty Charles II. Pennycuik had accompanied the Scottish Army, fighting for Charles II., and had been present at the battles of Preston and Worcester. He petitioned for a sum of £3668 6s. 8d. as balance of pay and disbursements made by him during six years' service. He also claimed £166 13s. 4d. for damage done to his lands and plundering of his house in Edinburgh by the "English usurpers."¹

It had been the custom till now to hold the meetings of the craft in the house of the Deacon for the time being, and one can imagine that the anatomical instruction must have caused some awkwardness in his domestic arrangements. In 1647, however, David Kennedy and James Borthwick reported that they had taken as a place of meeting, "three rowmes of ane tenement of land in Diksone Close, for payment of fourtie poundis zeirlic."²

Meeting
place in
Dickson's
Close

These rooms were furnished with a board and two forms, a green tablecloth, "half a dozen of chaires and a skeleton." After settling three years in Dickson's Close, the Calling removed in the spring of 1650 to new premises at the foot of the Kirkheuch, close to St. Giles. This was apparently used later as a billet for English soldiers, and afterwards the craft took for their meetings "two front rooms in John Scott's house," and later a "chamber" belonging to Thomas Kincaid, both of whom were members of the craft.

By 1669, it was found that such arrangements were unsuitable, and the craft decided to build a "convening house" on a piece of ground, in the south-east angle of the city wall, presented to them by the Town Council in 1656, each member subscribing £100 for that purpose.³

Erection of
a convening
house

On 24th October, 1694, a member of the Incorporation, Alexander Montearth, apparently on the instigation of Dr. Pitcairne, obtained from the Town Council a gift for thirteen years "of those bodies that dye in the correction-house," and of "the bodies of fundlings that dye upon the breast," together with a room for dissections. Immediately the other members of the Incorporation presented a petition (2nd November, 1694) for similar privileges.

Grant of
anatomical
material

The ingenuity of the Town Council was somewhat taxed to discover other sources of anatomical material, but they succeeded by granting "the bodies of fundlings who dye betwixt the tyme that they are weaned and their being put to schools or trades; also the dead bodies of such as are stiflet in the birth, which are exposed, and have none to owne them; as also the dead bodies of such as are *felo de se*, and have none to owne them; likwayes the bodies of such as are put to death by sentence of the magistrat, and have none to owne them." The grant was to take effect in the winter time, and there was an important condition attached, that the petitioners should, by Michaelmas, 1697, build, repair and have

¹ "Acts of the Scottish Parliament," Vol. VII., Appendix, p. 101.

² "Records of the College of Surgeons," 26th September, 1591, and 15th July, 1647.

³ *Ibid.* 18th May, and 26th May, 1669.

in readiness an anatomical theatre for public dissections, the hall of 1669 being apparently not large enough, or otherwise unsuitable.¹

Alexander
Monteath

Alexander Monteath, who was Deacon of the Incorporation when the new hall and anatomical theatre were erected in 1697, was a son of James Monteath of Auldcathie, and served his apprenticeship to William Borthwick, afterwards spending several years abroad in the study of his profession. He was admitted a Master-Surgeon in 1691, and in 1700 he petitioned Parliament "that the art discovered by him to draw Spirits from malt equal in goodness to true French Brandie, may be declared a manufactory with the same privileges and immunities as are granted to other manufactories." This was the beginning of an important Scottish industry.

He afterwards got into trouble with the Town Council through his criticism of excessive expenditure by the magistrates, and for this reason he was turned out of the Town Council. It is probable, however, that this was merely an excuse, and that the disfavour of the Town Council was due to Monteath's Jacobite sympathies. He retained the favour of the surgeons, and, in 1701, was unanimously re-elected their "preses."

The
Surgeons'
Hall

The new Surgeons' Hall was ready on the site of the old one, and the gift confirmed by December, 1697, and from this time the teaching of anatomy in Edinburgh became systematic. The surgeons also laid out round the hall a garden in which medicinal herbs were grown, and, at a later date, established a bath in connection with their premises.

Their
garden

As far back as 1664, the minutes disclose that the surgeons had a garden furnished with all kinds of medicinal herbs, and, in 1668, an agreement with George Cathcart, their gardener, describes his duties in detail. He was to occupy the gardener's house beneath their convening room, and to plant the yards (High School yards) with medicinal herbs and flowers for the use of the Calling. He was permitted to use a part of the garden to grow pot herbs for himself, and he was at liberty to sell drink and to keep "kyles" (a bowling alley), "providing he suffer not the vulgar sort of persons and the scholars of the High School to play thereat."

Instruction
in botany

About the end of the century an arrangement was reached between the Calling and Mr. James Sutherland, professor of botany, that apprentices and others who had the liberty of the shops of the surgeon-apothecaries, should pay a guinea to him, for which he, on his part, undertook to attend the masters of the Calling in the garden, demonstrate the plants, to conduct "a solemn public herbarizing in the fields" four times yearly, and to teach the apprentices and servants at such hours as the masters should appoint. In 1705, when Sutherland was superseded by Charles Preston, the surgeons, finding that the knowledge of botany was absolutely necessary for their apprentices, continued the arrangement with him. Again, when Dr. Charles Preston died in 1711, and was succeeded by his brother, George Preston, regulations were drawn up that all apprentices and servants should attend the class in the garden from the middle of May till the end of September, between the hours of five and seven in the morning.

¹ Gairdner: "Historical Sketch of the Royal College of Surgeons of Edinburgh," Edinburgh, 1860, pp. 16 and 17.

The surgeons from an early date had possessed certain "rarities" and books which formed the nucleus of the magnificent museum which is now housed in the hall in Nicholson Street. Provision was made for housing these when the hall at Surgeons' Square was erected, and, in October, 1699, an advertisement was put in the *Edinburgh Gazette* notifying that the chirurgion-apothecaries of Edinburgh were erecting "a library of Physicall, Anatomically, Chirurgicall, Botanicall, Pharmaceuticall and other Curious books," and that they were also making "a collection of all naturall and artificiall curiosities." Persons having such to bestow were asked to give notice to Walter Porterfield, treasurer to the society, who would acknowledge the gifts or, if the possessors did not think fit to bestow them gratis, would be willing to give reasonable prices for them. The museum

The rarities at the time included such things as "ane egyle" given by Alexander Monteath, "three scorpions and a chameleon," presented by Lord Royston, and "an allegatory or young crocodile," the gift of Dr. Charles Oliphant.¹

The new hall and anatomical theatre contained a laboratory which consisted of three rooms in the under-basement of the house towards the west end, and this was leased in 1697 to Alexander Monteath. He fitted it up as a chemical laboratory, containing among other things "four hundred gally-pigs," at a cost of £20, and "a great hot pot" at a cost of £5. Here he was to train the "intransigent apothecaries" in the art of chemistry. The laboratory

Still another department of the new surgical building in 1697 was a bagnio, or bath-house, with hot and cold baths. The Town Council permitted the surgeons to obtain the overflow from the trough of the well at the head of Niddrie's Wynd, which was brought to the hall through pipes laid down by Patrick Skirving, plumber in the Canongate. The bagnio seems to have been a fine place, for it was floored with 400 black and 400 white marble stones, about one foot square, and the walls were lined with some 700 white tiles, five inches square. The bath had a bottom of copper, weighing 51 pounds, and costing £63. The bath was, however, not open to the public until January, 1704, when it was announced that here "all noblemen, gentlemen, ladies and others may be conveniently sweated and bathed—the men on Mondays, Wednesdays, Thursdays and Saturdays, and the women on Tuesdays and Fridays (on which two days no man is allowed to come within the garden)."The bath

The price for a bath was £3 Scots per person, although any person desiring to use the bagnio alone might enjoy it at a charge of £6 Scots. At a later date public advertisements were distributed announcing the price of the bath to be 4s. sterling and 1s. to the servants, and in 1718 an advertisement in the *Public Courant* intimated that "people are allowed to come in and wash themselves for half an hour in the little bagnio and to have the use of a room to dress in for eighteen pence, but if they stay longer the haill dues are to be paid."

The bagnios, however, ultimately proved a failure, and, in 1740, it was decided to give them up.

¹ Miles: "The Edinburgh School of Surgery before Lister," London, 1918, p. 15.

We may now return to the subject of anatomical instruction in the new Hall.

Pitcairne and Monteath joined other members of the Incorporation in giving combined anatomical demonstrations, and we find Pitcairne writing, in 1694, to a friend in London that he proposed "to make better improvements in anatomy than have been made at Leyden these thirty years."¹

Anatomical
course in
1702

There is a minute of the Incorporation for January, 1703, showing how the anatomical demonstrations were then (November, 1702), carried out by the various members appointed for the purpose: *First day*, a general discourse on anatomy, and the common teguments and muscles of the abdomen, by James Hamilton, the Deacon. *Second day*, the peritoneum, omentum, stomach, intestines, mesentery and pancreas, by John Baillie. *Third day*, the liver, spleen, kidneys, ureters, bladder and parts of generation, by Alexander Monteath. *Fourth day*, the brain and its membranes, with a discourse of the animal spirits, by David Fyfe. *Fifth day*, the muscles of the extremities, by Hugh Paterson. *Sixth day*, the skeleton in general, with the head, by Robert Clerk. *Seventh day*, the articulations and the rest of the skeleton, by James Auchinleck. *Eighth day*, the epilogue, by Dr. Pitcairne.²

Another and longer course of ten demonstrations is minuted in the records of the surgeons (18th May, 1704), as having taken place in the preceding April. It was as follows: *First day*, James Hamilton, a discourse on anatomie in generall with a dissection and demonstration of the common teguments and muscles of the abdomen. *Second day*, John Mirrie, the umbilicus, omentum, peritoneum, stomach, pancreas, intestines, vasa lactea, mesentery, receptaculum chyli and ductus thoracicus. *Third day*, Mr. Alexander Nisbet, the liver, vesica fellis, with their vessels, spleen, kidneys, glandulæ renales, ureters and bladder. *Fourth day*, George Dundas, the organs of generation in a woman, with a discourse of hernia. *Fifth day*, Robert Swintoun, the containing and contained parts of the thorax, with the circulation of the blood and respiration. *Sixth day*, Henry Hamilton, the hair, teguments, dura and pia mater, cerebrum, cerebellum, medulla oblongata and nerves within the head. *Seventh day*, Robert Eliot, the five externall senses, with a demonstration of their severall organs. *Eighth day*, John Jossy, the muscles of the neck and arm, with a discourse on muscular motion. *Ninth day*, Walter Potter, the muscles of the back, thigh and legg. The *epilogue* or conclusion, by Dr. Archibald Pitcairne.

Robert Eliot

About the year 1705, there appears to have been a general desire that one man should take over the management of these lectures, and there was considerable competition for the privilege of being appointed to do this. Robert Eliot was chosen by the Incorporation as "public dissector," and later in the same year (29th August, 1705), he also received from the Town Council a salary of £15 per

¹ Bower: "History of the University of Edinburgh," 1817, Vol. II, p. 149.

² Creswell: "The Royal College of Surgeons of Edinburgh from 1505 to 1905," Edinburgh, 1926, pp. 193 and 194.

annum. Eliot was thus the first "Professor of Anatomy" in the Town's College, and the earliest professor of this subject in Britain. The appointment was a double one, the town providing the salary and the surgeons supplying the theatre. In 1708, at his request, Adam Drummond was conjoined with him in this post, receiving half of the salary.¹

Anatomy now became a very popular study, and the supply of bodies from the sources already mentioned proving inadequate, recourse was had to body-snatching. As early as 1711 there were great complaints of graves in Edinburgh being rifled. The Incorporation of Surgeons felt themselves called upon to forward to the magistrates a memorial which, in the first place, denounced

Adam
Drummond

this as "a scandalous report, most maliciously spread about the town," and entreated the magistrates to exert their utmost power for the "discovery of such an atrocious and wicked crime." Expulsion from the Incorporation was also threatened against any of its members or apprentices who should be found concerned in the fore-said crimes. The whole memorial, however, sounds rather exculpatory than sincere, and the practice probably continued, though with greater precaution.²



JAMES HAMILTON

Deacon of Surgeons, 1702

(Original in the Royal College of Surgeons, Edinburgh)

years later they resigned their posts—"as the state of their health and business were such that they could not duly attend the said professorships"—in favour of Alexander Monro (*primus*).

On the death of John M'Gill Robert Eliot, in 1714, John M'Gill was associated with Adam Drummond as joint professor of anatomy in the Town's College. Two

¹ Struthers: "The Edinburgh Anatomical School," Edinburgh, 1867, p. 14.

² Bower: "History of the University of Edinburgh," 1817, Vol. II., p. 163.



ADAM DRUMMOND
Conjoint Professor of Anatomy in 1708
(Original in the Royal College of Surgeons, Edinburgh)



JOHN MCGILL
Conjoint Professor of Anatomy in 1714
(Original in the Royal College of Surgeons, Edinburgh)

Alexander Monro (1697-1767), then a young man of 22, had been educated by his father John Monro, an old army surgeon, for this post. John Monro had been a pupil of Pitcairne¹ at Leyden in 1692, so that he readily fell in with the schemes of the latter for the establishment of a medical school at Edinburgh, and continued to work for the foundation of a hospital there after Pitcairne's death. Alexander Monro had a special knowledge of anatomy, had studied under Cheselden in London, and had been admitted a Master of the Calling three months previously. He was now (22nd January, 1720) elected "Professor of Anatomy in this city (Edinburgh) and college," the yearly salary of £15 being continued.

Alexander
Monro

On 14th March, 1722, Monro's appointment was confirmed *ad vitam aut culpam*, instead of the previous tenure of office "during the Council's pleasure."²

In 1718, Alexander Monro had presented to the surgeons "some anatomical pieces done by himself," including an articulated skeleton in a glass case, and dissections preserved in spirit; of which the skeleton and case are still extant. Monro lectured in the Hall of the Surgeons from 1719 till 1725, when, following upon a public riot directed against body-snatching, he removed his preparations for greater security within the walls of the university, as the Town's College had come by this time to be called.³ Once more on this occasion (17th April, 1725) the Incorporation of Chirurgeons published a notice, which was printed and distributed through the town, deprecating and denying body-snatching. It contains the following curious passage:—

Rumours of
body-
snatching



DISSECTIONS BY ALEXANDER MONRO
(*primus*) AND ARCHIBALD PITCAIRNE
(Preserved in the Royal College of Surgeons at
Edinburgh)

apprentices in order to be dissected; and although this report will appear ridiculous and incredible to any thinking person, yet the Incorporation, for finding out the foundation and rise thereof, do promise a reward of five pounds stg. for discovering

¹ Album Studiosorum Acad. Lugduno-Batav., 1575-1875.

² Bower: "History of the University of Edinburgh," 1817, Vol. II., p. 182.

³ Bower: *Op. cit.*, Vol. II., p. 184.



SURGEONS' HALL OF 1697

The figures in front include Benjamin Bell, A. Monro (*secundus*) and Alexander Wood: the city wall and Curriehill House appear in the background.

The ground flat, with the door and date still, remains: a third flat has been added

(Original picture in the Royal College of Surgeons, Edinburgh)

such as have given just ground for this report, whether they be Chirurgeons' apprentices or others personating them in their rambles or using this cover for executing their other villainous designs."

There are, however, records which give some colour to this report; for example, in 1724, after a woman had been executed, there ensued a fight between her friends and some surgeon-apprentices for possession of the body. In the middle of the fracas the supposed corpse came to life, and lived for many years with the popular appellation of "half-hangit Maggie Dickson." It was not till a century later that the report received dreadful confirmation in the revelations at the trial of Burke and Hare.¹



SEAL

ROYAL COLLEGE OF SURGEONS
EDINBURGH

¹ Creswell: "The Royal College of Surgeons: Anatomy in the Early Days," *Edinburgh Medical Journal*, 1914. Vol. XII., p. 150.



A TRAVELLING MOUNTEBANK OF THE 17TH CENTURY
Illustrating a class of men who invaded Scotland in the 17th and 18th centuries (see page 261)
(From the original picture by Jan Steen of Leyden, 1626-1679)

CHAPTER XII

FOUNDATION OF THE PHYSIC GARDEN AND OF THE ROYAL COLLEGE OF PHYSICIANS AT EDINBURGH

THE necessity for a supply of good doctors in Edinburgh, as in other parts of Scotland, and the further necessity for a controlling influence, such as that exerted by the College of Physicians, is demonstrated by the frequency with which strolling mountebanks appeared, even in the capital city. In 1672, Joannes Michael Philo, physician, and "sworn operator to his majesty," petitioned the Privy Council for permission to erect a public stage in Edinburgh for the practice of his profession, which was allowed, though he was forbidden "to have any ropedancing." He was reported later to have "thereon cured thretteen blind persons, several lame, and cut several cancers, and done many other notable cures, as is notourly known, and that out of mere charity." The Privy Council, after he had been three months in Edinburgh, gave him a warrant "to go and do likewise in all the other burghs of the kingdom," for six months, and recommended him to the help and countenance of the magistrates of the burghs.¹

Necessity for
control of
medical
practice

Again, in 1677, there is notice of a travelling doctor, styling himself Joannes Baptista Marentini, who with the permission of the Edinburgh Town Council, erected a stage in the city for practising his skill in physic and otherwise. Marentini had a servant, Monsieur Devoe, about whom James Baynes petitioned the Privy Council because he, while "servant to the mountebank who was lately in this place, hath, by sinistrous and indirect means, secured and enticed the petitioner's daughter and only child to desert her parents, and to live with him upon pretence of a clandestine marriage." The Council issued a warrant to have the offender imprisoned in the Tolbooth, but he appears afterwards to have settled down in Edinburgh as a dancing-master.²

Again, in 1684, Cornelius a-Tilbourne, a German mountebank, applied to the Privy Council for licence to erect a stage in Edinburgh. The College of Physicians was now in existence, and opposed the application, which, nevertheless, was granted. He had previously made a successful experiment upon himself in London by taking poisons administered by the physicians there, after he had drunk an antidote, and the king had granted him a medal and chain. In Edinburgh he expressly excluded mercury, aqua fortis and other corrosives from the trial, but carried out the experiment on his servant. The Edinburgh poisons were apparently more effective than those of London, and the servant died.³

¹ Chambers: "Domestic Annals of Scotland," Edinburgh, 1858, Vol. II., p. 347.

² Chambers: *Op. cit.*, pp. 383 and 384.

³ Chambers: *Op. cit.*, p. 458.

The state of medicine about 1670 outside Scotland was as follows: Sydenham was practising in London. Harvey's discovery had been published over 40 years previously, and was still disputed, though Borelli, by his laborious mathematical investigations, had developed its principles into the Iatro-mechanical school of thought. Boyle, Mayow, Willis and kindred spirits of the Royal Society of London were studying various problems of life and disease. Malpighi and Leeuwenhoek were using the earliest microscopes to investigate the structure of the bodily fluids and tissues. Sylvius, at Leyden, was founding physiological chemistry and introducing the new idea of instruction in the wards of his hospital as a part of medical education.

General
state of
medicine

About 1670, the leading physicians of Edinburgh, moved by a desire to reform medicine, set themselves to lay out a Physic Garden and to obtain a charter for the institution of a College of Physicians. The men chiefly concerned in the movement to establish a Physic Garden were Dr. Robert Sibbald and Dr. Andrew Balfour.

The study of botany was then considered, along with anatomy, the most important preliminary to a scientific knowledge of medicine. The surgeons, as we have seen, had already made provision for anatomy, and thus it lay with the physicians to cultivate botany. Dr. Balfour had settled as a physician in Edinburgh in 1667, and in the small garden attached to his house had raised many plants never before seen in Scotland. His friend, Mr. Patrick Murray of Livingstone, had also developed at his country seat a botanic garden containing over 1000 specimens of plants. Sibbald and Balfour determined to establish a regular Physic Garden, and Sibbald gives the following account of the way in which this project started:—

Desirability
of a physic
garden

“ Dr. Balfour and I first resolved upon it, and obtained of John Brown, gardner of the North yarden in the Abby, ane inclosure of some 40 foot of measure every way. We had, by this tyme, become acquaint with Master James Sutherland, a youth, who, by his owne industry, had attained great knowledge of the plants and of medals, and he undertook the charge of the culture of it. By what we procured from Leviston (*i.e.*, Patrick Murray, Laird of Livingstone) and other gardens, and brought in from the Country, we made a collection of eight or nyne hundred plants ther.

First garden
at Holyrood

“ We got several of the Physitians in town to concur in the designe, and to contribute so much a yeer for the charge of the culture and importation of foreigne plants.

“ Some of the Chirurgion Apothecaryes, who then had much power in the town, opposed us, dreading that it might usher in a Coledge of Physitians, bot, by the care and dexterity of Doctor Balfour, these were made friends to the designe, and assisted us in obtaining of the Counsell of Edinburgh ane lease to Mr. James Sutherland, for nynteen years, of the garden belonging to Trinity Hospitall, and adjacent to it. And Doctor Balfour and I, with some others, were appointed by the Town Counsell visitors of the garden.

Second
garden at
Trinity
Hospital

“After this, we applied ourselves with much care to embellish the fabrick of the garden, and import plants from all places into this garden, and procured that severall of the nobility concurred in contributing for some years, for the encouragement of Mr. Sutherland; some gyfts lykewise were obtained of money from the Exchequer, and the Lords of Session and Faculty of Advocates, for that use; and by Dr. Balfour’s procurement, considerable pacquets of seeds and plants were yeerly sent hither from abroad, and the students of medicine got directions to send them from all places they travelled to, wher they might be had, by which means the garden increased considerably every yeer.”¹

Professor of
botany

These two early Physic Gardens were situated, the first north-west of Holyrood Abbey, on a spot occupied at present by small stretches of turf; the second is shown



JOHN HOPE (1725-1786)
(From Kay’s “Portraits”)

as the Garden of Trinity Hospital in Gordon of Rothemay’s plan of Edinburgh. Here, in 1676, James Sutherland was established as professor of botany, and in 1683 published his “*Hortus Medicus Edinburgensis*.” He had a salary of 20 pounds from the city, and taught the science of herbs to students for small fees. In 1689, during the siege of the Castle, it was thought necessary to drain the North Loch, and the water for several days ran over the Physic Garden at Trinity Hospital, completely spoiling it. Sutherland, therefore, in 1695, extended his Garden at Holyrood, which seems to have become a very fine place.

This garden, after that of Oxford (founded in 1632), is the oldest botanic garden in Great Britain. Sutherland was also appointed King’s Botanist for Scotland, a post which he held till the death of Queen Anne in 1714.

In 1715, he was succeeded in this post by William Arthur (1680-1716), who, however, being implicated in a Jacobite plot to seize Edinburgh Castle, lost the post, to which Charles Alston was appointed in 1716.

Third garden
at the
Town’s
College

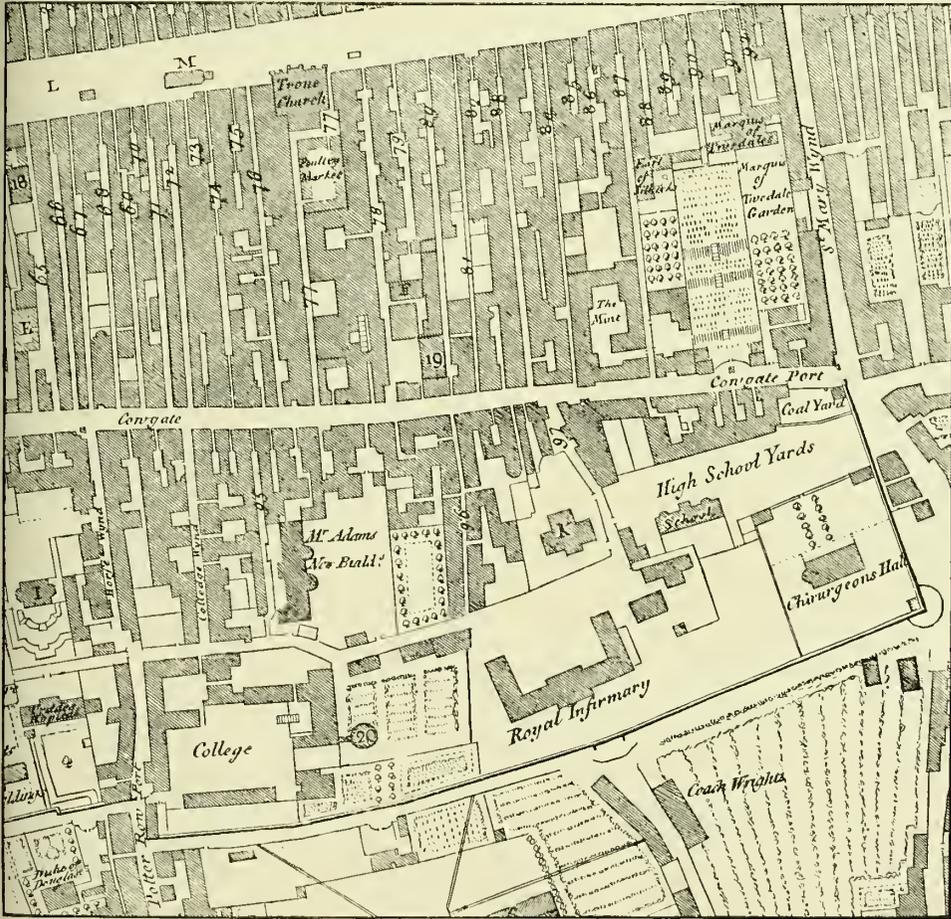
In 1695, the Town Council, after stating that “the Physic Garden is in great reputation both in England and in foreign nations by the care and knowledge of Mr. James Sutherland,” appointed him still more formally professor of botany in the Town’s College, and confirmed to him the pension of £20 sterling annually.

¹ “The Autobiography of Sir Robert Sibbald, Knt., M.D.,” printed 1833, pp. 21 and 22.

He was now also charged with the duty of looking after the College yard or garden, a piece of ground laid out in 1702 to the east of the Town's College, and he was to have a room in the College for keeping books and seeds. He also at this time received an appointment from the Incorporation of Surgeons to instruct their apprentices and pupils in botany in the surgeons' garden at a fee of one guinea each. In 1705, however, a complaint was made that he had neglected the garden of the Town's College, of which he was keeper; the Town Council immediately cut down his salary, and he resigned office as professor, retaining, however, the appointment as King's Botanist and charge of the Royal Garden at Holyrood.

Fourth garden at the Surgeons' Hall

It is to be noted that in the early days there were four distinct botanic or physic gardens in Edinburgh.



PLAN OF EDINBURGH IN 1765

The College, Royal Infirmary and Surgeons' Hall with the Surgeons' Garden are seen close to the southern wall of the city. 1. Minto House (later used by James Syme as a Hospital); 20, Monro's theatre, built in the College Garden; 87, South Gray's Close where William Cullen practised; 90, Fountain Close, at the foot of which was the original hall of the Royal College of Physicians

Sutherland was succeeded by Dr. Charles Preston, and he in turn in 1712 by his brother George Preston in the chair of botany. The latter did much to improve the garden at Trinity Hospital, and built a greenhouse in the College Garden, for which he received an allowance of £10 yearly from the Town Council. He also kept a shop on the north side of the High Street, opposite the head of Blackfriars Wynd, where he sold "all sorts of spices, sugars, tea, coffee, chacolet, etc."¹

When George Preston retired in 1729, the Town Council appointed Charles Alston as professor of medicine and botany in the university, and in charge of the Town's Garden at Trinity Hospital. The College Garden had by this time fallen into disorder, and had been taken over by Professors Plummer and Innes for growing medicinal plants in connection with their class. Alston was already, since 1716, King's Botanist in charge of the Royal Garden at Holyrood. The university professorship was thus joined with the regius professorship at the Holyrood Garden, and the two offices have continued thus united in one person to the present time.²

Transfer of
garden to
Leith Walk

In 1761, John Hope (1725-1786) succeeded Alston in the two offices. Finding that the gardens at Trinity Hospital and Holyrood were unsuited for the development which had taken place, Hope obtained a grant from the Treasury and removed the Garden to a site on the west of Leith Walk, near the present Gayfield Square. The old Garden at Trinity College disappeared about 1770.³

To
Inverleith

Professor Hope was succeeded in 1786 by Daniel Rutherford, who, although professor of botany and medicine, was much more of a chemist, and was the discoverer of nitrogen gas. Subsequent professors were Robert Graham and John Hutton Balfour, known to his students as "Old Woody Fibre." The present Botanic Garden in Inverleith Row was formed in 1822-1824, and the adjoining Arboretum was opened in 1881, as the result of purchases by the Town Council and the Crown, the whole area having become Crown property in 1876.

From 1738 to 1879, the professors had been charged with the duty and title of professing medicine and botany. Balfour was succeeded in 1879 by Alexander Dickson as professor of botany; he in turn, in 1888, by Sir Isaac Bayley Balfour, son of John Hutton Balfour, and he in turn was succeeded in 1922 by William Wright Smith. The subject latterly was regarded as belonging to the faculty of science.

Royal College of Physicians

The Royal College of Physicians was instituted as follows. The regulation of surgical practice at Edinburgh by the Guild of Surgeons and Barbers, and their increasing efforts to develop a knowledge of anatomy, have already been described. The regulation of medicine was another important step necessary before a medical school could be constructed. The early Edinburgh physicians had mostly obtained a knowledge of medicine on the Continent, and during the 17th century several capable and distinguished physicians practised in Edinburgh. As early as 1617,

¹ Bower: "History of the University of Edinburgh," Vol. II., p. 121.

² Guide to the Royal Botanic Garden, Edinburgh, H. M. Stationery Office, 1927, p.v.

³ Grant: "Old and New Edinburgh," Vol. I., p. 363.

when King James re-visited Scotland, an attempt had been made to found a College of Physicians at Edinburgh, but it had been opposed by the universities and the bishops.

King James had gone so far as to issue an order to the Scottish Parliament for the establishment of a College of Physicians in Edinburgh. In this, after reciting the evils which the community had suffered from the intrusion of irregular practitioners, he directed that a College of Physicians should be formed, seven persons appointed to examine those who proposed to practise medicine, and that it should be made illegal for any person to exercise the art and science of physic within Edinburgh and its neighbourhood unless possessed of the diploma of the College. It was also suggested that such a College should appoint yearly three of its number to visit the apothecaries' shops in the burgh, to examine the drugs exposed for sale, and to destroy such as might be found corrupt or inefficient.

First attempt to found a College of Physicians by James VI.

No action having been taken by the Scottish Parliament in view of the opposition which was offered, a second attempt was made in 1630, when King Charles I. referred the matter to the Privy Council. Owing to the unsettled state of public affairs, nothing further was done in his reign.

Second attempt by Charles I.

The matter was taken up for a short time by Cromwell during the Protectorate, and a patent was made out in 1656 for the institution of a College of Physicians "who shall have power and authority to oversie, rule and order, what may concerne the right administratioune of Physike to the people of Scotland in all pairts and places of the said nation, with power to them to censure and punish all persons who shall presume to practise, exercise, or profess Physike or give Medicines, or ordaine Physicall Praescriptions in any pairt or place in Scotland, being not members of the said Colledge, or not being approved and licensed by the said Praesident and Colledge under their Common Seall." The power to practise the art of surgery and the right to supervise apothecaries, and also the right to teach anatomy, were likewise to be conferred upon the College.

Third attempt by Cromwell

The other public medical bodies, however, and especially the surgeons of Edinburgh, who had adopted the work of apothecaries as part of their practice, made considerable opposition, and before the differences were ended, the death of the Protector put a stop for the time to the whole scheme.

The application for a Charter in the time of the Parliament was signed by 18 doctors, whose names are as follows:—

A. Ramsay	D. Balfour	D. Oughterlony
Al. Meirting	Wm. Macgill	T. Gordon
Ja. Leslie	J. Saintserf	Silvester Rattray
Thomas Gleg	Ro. Strachane	D. Moire
Tho. Forbesse	Alexr. Yeoman	George Purvass
Ro. Burnett	D. Bethune	D. Patone. ¹

According to Sir Robert Sibbald, the most active in the matter was Dr. George Purvass, but the first, and presumably therefore the most outstanding, was

¹ Sibbald: "Memoirs," Edinburgh, 1887, p. 15.

Alexander Ramsay, M.D., a native of Forfarshire, and the descendant of an old family in which one of the members, Neiss de Ramsay, had been physician to King Alexander II. in the 13th century.¹ Alexander Ramsay had graduated M.D. at Basel in 1610, and had become a Fellow of the Royal College of Physicians of London in 1618. In 1635, he was one of the physicians to Charles I.²

The matter was again dropped for more than 20 years, but was revived when Prince James came to Scotland as High Commissioner for King Charles II.



ALEXANDER RAMSAY

(Original portrait in possession of Sir J. Douglas Ramsay, Bart., of Bamff)

Success of
Sir Robert
Sibbald

Sir Robert Sibbald gives an account of the help afforded by Prince James, Duke of York, and his physician, Sir Charles Scarborough, in obtaining a patent for the erection of the College of Physicians of Edinburgh. After much opposition from the surgeons and the Town Council of Edinburgh, as well as the universities and the bishops, and after many conferences, the patent finally received the king's signature and the Great Seal upon the 29th November, 1681, and the College of Physicians was then established. In the following year, Drs. Sibbald, Stevenson and Balfour were knighted by the Duke of York.

¹ Warden : "Angus or Forfarshire," Dundee, 1881, Vol. II., p. 349.

² Munk : "Roll of the Royal College of Physicians of London," London, 1878, Vol. I., p. 174.

The following is Sir Robert Sibbald's account of the matter :—

“ This gave the first ryse to our meetings thereabout, and his Royal Highnesse, the Duke of York, coming to Scotland shortly after, and Sir Charles Scarborough, his Majesties first Physitian, following him soon after that, wee consulted with Sir Charles, and found him our great friend, and very ready to give us his best assistance, with the King, and the Duke who was by this tyme High Commissioner. There was great opposition made to the designe by the town of Edinburgh, who concurred with the Chirurgion Apothecaries, and by the universities, with whom the Archbishops and Bishops, and some of the nobility, joined. I gott the Earle of Perth, and his brother Melfort, to be our great friends, and they brought over many of the nobility to favour the designe ; and I, having recovered ane warrant of King James the Sixt, of happie memorie, dected to the Commissioner and Estaits of Parliament, then sitting in Scotland, dated the 3d of July, 1621, with ane reference by the Parliament thereanent, to the Lords of Secret Counsell, with power to doe therein what they thought fitt, and that their determination therein sould have the form of ane act of Parliament, dated the second of August, 1621, produced this to his Royall Highness, who, so soon as he saw it superscribed by King James, said with much satisfaction, he knew his grandfather's hand, and he would see our byseness done, and from that moment acted vigourously for us, so that it was resolved there sould be ane colledge of Physitians, butt it took a long tyme of dispute befor the counsell, in answering the objections of the Chirurgeons and of the Town of Edinburgh against it. We soon did agree with the universities and Bishops, and there were some conditiones insert in the patent in their favours, and they became strong solicitours for us, so that after long debates, the matter was concerted, and the draught of the patent agreed to by the Counsell, was sent up, and very soon thereafter, by his Royall Highness his procurement, returned signed by the King ; the very next day I turned it into Latin, and the day thereafter gave it in to the Chancery chamber, and waited upon it till it was written in parchment, and ready for the great seall, which was appended to it upon the 29th of November, 1681, being St. Andrew's day ; it cost a great deal of money to defray the charges of the plea, and for getting it signed at court, and sealed here.”¹

The charter given to the Royal College of Physicians in 1681, began by stating the necessity that existed for ascertaining that those who designed to practise any profession should be examined as to their capacity for doing so, and added that in medicine many ill-qualified persons exercised the healing art. It ordained that the College should consist of certain individuals, who were named, and of others who might be chosen by them as colleagues and Fellows of their society within the city of Edinburgh, its suburbs and liberties. It inhibited under penalties anyone from practising medicine within the jurisdiction of the College who had not obtained its licence or diploma. It also gave to the College power to examine

Charter of
1681

¹ “ The Autobiography of Sir Robert Sibbald, Knt., M.D.,” printed 1833, pp. 30-31.

along with a magistrate and chemist the medicines kept in the apothecaries' shops, and to destroy such as were not found to be of good quality, as well as to examine anyone who proposed to open an apothecary's shop, in regard to his competent knowledge of drugs.

The charter also exempted the Fellows of the College from being cited as jurors on assizes, or from being called out to watch or ward.

In order to remove the opposition of the universities to the granting of the charter, clauses were inserted that the College of Physicians should have no power to erect a medical school, that its patent should be without prejudice to the rights and privileges of the universities, and that the graduates of the universities might claim to be licensed by the College without examination and without fee.

Later
charters

A number of these provisions gradually became obsolete in consequence of social changes, and, after the passing of the Universities' Act in 1858, it became desirable to obtain a new charter. The new charter was accordingly obtained on 31st October, 1861, and gave to the College the right to all property belonging to it under the former charter, the power to admit new fellows, members and licentiates, and to exercise disciplinary control over its Fellows, members and licentiates, as well as to make bye-laws for promoting the science of medicine and ordering its practice.

By a short supplementary charter, dated 8th January, 1920, power was given to the College to admit women as Fellows and members on the same terms as men.

The original
college

The complete list of the 21 Fellows mentioned in the original patent is as follows :—

David Hay	Alexander Cranstone
Thomas Burnet	John Hutton
Matthew Brisbane	John M'Gill
Archibald Stevensone	John Lermouth
Robert Sibbald	William Stevensone
James Livingstone	James Halket
Andrew Balfoure	William Wright
Robert Crawford	Patrick Halyburton
Robert Trotter	William Lauder
Matthew Sinclair	Archibald Pitcairne.
James Stewart	

Sir Robert
Sibbald

Sir Robert Sibbald (1641–1722), was the son of Mr. David Sibbald of the family of Rankillor, and from his mother, Margaret Boyd, he inherited the house and estate of Kipps, a short distance south of Linlithgow. He had gone through a theological course in Edinburgh, and, in 1660, proceeded to Leyden to study medicine. In his autobiography, he says :—

His medical
education

“ I stayed at Leyden aye yeer and a half, and studied anatomic and chirurgie, under the learned Professor Van Horne. I studied the plants under Adolphus Vorstius, who had been then Botanick professor 37 yeers, and I studied the institutions and practice, under Sylvius, who was famous then. I saw twentye-three human bodies

dissected by him in the Hospitall which I frequented with him. I saw some dissected publickly by Van Horn. I was fellow student with Steno, who became famous afterwards for his wrytings. He dissected in my chamber sometymes, and showed me there, the ductus salivalis superior, he had discovered. I frequented ane apothecaryes shop, and saw the materia medica and the ordinary compositiones made. I studied Chimie, under a German called Witichius, and after he went away, under Margravius, brother to him who wrott the naturall history of Brasile. Sometyme I heard the lessons of Vander Linden, who was famous for critical learning.

"I composed ther (the last summer I stayed ther,) Theses de variis Tabis speciebus. Sylvius was praeses when I defended them publickly in the schools. . . . In September, 1661, I went from Leyden for Paris. . . .

"I stayed some nyne moneths at Paris, where I was well acquainted with the famous Guido Patin, who lent me bookes, and gave me for a tyme the use of his manuscript written for the direction of his two sons, Robert and Charles (who were then Doctors of the Faculty of Paris), in their studies. I studied the plants under Junquet in the King's Garden, and heard the publick lessons of Monsieur de la Chambre the younger, and Monsieur Bazalis, and I frequently was present at ther publick disputes, and visited then the Hotel de Dieu, and the Hospital of the Charity.

"From Paris I went to Angiers with letters of recommendation from Guido Patin to Bailif Sentor, the Dean of Faculty. I stayed a moneth ther, and was examined by his son, by Ferrand Joiselin and Boisenute, and gott my patent of Doctor ther."¹

Such was a medical course in the 17th century. Sibbald had a large and influential practice in the neighbourhood of Edinburgh, was appointed by Charles II. Geographer Royal for Scotland, and left considerable literary remains, dealing especially with the natural history and archæology of Scotland.

Four years after the erection of the College of Physicians, the Town Council decided to appoint a medical professor, and a minute of the Council, dated 25th March, 1685, records that the university is "indowed with the previleges of erecting professions of all sorts, particularly of Medicen," and that there is "a necessity ther be ane professour of Physick in the said Colledge, therefor as Patrons of the said Colledge and University unanimously elect, nominate, and choyse the sd Sir Robert Sibbald to be Professor of Physick in ye sd University." On 4th September, 1685, the Town Council Minutes record that "the Counsell appoynts two Professors of Medicen to be joyned with Sir Robert Sibbald in the University." For this purpose Dr. James Halket and Dr. Archibald Pitcairne were chosen.²

Appointed
professor of
medicine

It is uncertain to what extent these professors availed themselves of the rooms provided for them in the Town's College by giving lectures to students. They had no salary, and though there is no record of any definite course to students, Sibbald and Halket took part in the discourses at the College of Physicians, and Pitcairne organised and took part in the anatomical demonstrations in the College of Surgeons. On 14th February, 1706, twenty-one years after his appointment as professor, Sir Robert Sibbald published a Latin advertisement in the *Edinburgh Courant*, in which he states that he will begin to teach a private class in medicine in the following spring, and he lays down as a preliminary condition that the young

¹ "The Autobiography of Sir Robert Sibbald, Knt., M.D.," printed 1833, pp. 16 and 17.

² Peel Ritchie: "The Early Days of the Royall Colledge of Phisitians," Edinburgh, 1899, p. 25.

men who join the class must be skilled in the Latin and Greek languages, the whole of philosophy and the fundamentals of mathematics. To such, who practically had to be graduates in arts, he was apparently prepared to pour forth the stores of his knowledge on medicine and natural history.¹

In 1686, Sir Robert Sibbald was persuaded by the Earl of Perth to embrace the Roman Catholic faith, but having been hunted out of his house by the Edinburgh mob, and having thereafter made a visit to London, where, as he says, "I perceived also the whole people of England was under a violent restraint then, and I foirsaw they would overturne the Government," he resolved to return to the Church in which he was born, and, as he quaintly remarks: "After my returne, it pleased God the popish interest decayed dayly, and good men thought I by my returne had done it more damage then my joining had profited them."² The Revolution occurred two years later.



SIR ROBERT SIBBALD (1641-1722)

His works

Sir Robert Sibbald, when in London in 1686, was made an honorary Fellow of the College of Physicians of London. He was much engaged in the preparation of the Edinburgh Pharmacopœia, which was ready by 1689, although Sibbald adds: "by the malice of some, it was laid aside for ten yeers thereafter." This was apparently due to the separation of the Stevenson faction from the College. He was a copious writer, his chief work being "*Scotia Illustrata, sive prodromus historiæ naturalis*," published in 1684. Valuable treatises dealing with historical and archæological

¹ Grant: "Story of the University of Edinburgh," London, 1884, Vol. I, p. 227.

² "The Autobiography of Sir Robert Sibbald, Knt., M.D.," printed 1833, pp. 35-41

matters are found in his "History of Fife and Kinross," "Roman Ports on the Firth," "History of Linlithgow and Stirling," "Description of the Isles of Orkney" and "Account of Scottish Writers." Several of his works still exist only in manuscript in the National Library, and one in that of the College of Physicians at Edinburgh. His "Autobiography," which gives interesting information regarding his times, was first published in 1833.

He died in 1722, when his library was purchased by the Faculty of Advocates for £342 17s. sterling, a very large sum in those days.

Dr. Archibald Pitcairne (1652-1713) was perhaps the most celebrated Scottish physician of the time, both at home and abroad, and he, more than anyone else, may justly be regarded as the originator of the Edinburgh medical school. His father, Mr. Alexander Pitcairne, was a baillie of the city and the proprietor of Pitcairne in Fifeshire, an estate to which Dr. Archibald Pitcairne ultimately succeeded. He was laureated M.A. at Edinburgh University in 1671, and went through a course of Divinity, his father's intention being that he should enter the Church.

Archibald
Pitcairne

Later he decided to follow the pursuit of law, for which he studied first in Edinburgh and afterwards in Paris. Meeting some friends who were medical students in the latter city, he was induced by them to attend the hospitals in Paris for some months, after which he returned to Edinburgh. Here he applied himself to botany, pharmacy, materia medica and mathematics, but returned in 1675 to Paris in order to follow the study of medicine. He graduated M.D. at Rheims in 1680, then returned to Scotland and began to practise in Edinburgh, where he immediately acquired a wide reputation. In the following year, on the foundation of the Royal College of Physicians, he became the youngest of its original Fellows, being then aged 29, and a graduate in medicine of little more than one year.

His medical
education

On the inducement of his friend David Gregory, later professor of mathematics at Edinburgh, and afterwards Savilian professor of astronomy at Oxford, he devoted himself with great assiduity to mathematics,¹ becoming, like Borelli in Italy, one of the founders of the Iatro-mechanical or Iatro-mathematical school of thought. The system developed from Harvey's demonstration of the circulation; for when the importance of this dynamic principle was grasped, in contradistinction to that of the leisurely ebb and flow of humours, its adherents attempted to prove that all the bodily activities, including even those of the nervous system and of digestion, were mere mechanical exercises. Although this idea could not persist for long, it formed for the century after Harvey a fruitful working hypothesis.

His support
of Harvey's
work

Pitcairne threw himself into this controversy with zest, beginning his career as a physician by publishing his "Solutio Problematis de Inventoribus," in which he emphasised the importance of Harvey's discovery regarding the circulation of the blood, which was at that time by no means universally accepted. The prominence which he gained as a controversialist on this subject was perhaps in

¹ Pitcairne: "The History of the Fife Pitcairns," Edinburgh, 1905, p. 370.

part responsible, in addition to the Town Council influence which he possessed, in gaining for him, at the early age of 32, the appointment, along with Sir Robert Sibbald and Dr. James Halket, of professor of medicine in the Town's College, an appointment made in the year 1685.

Before Leeuwenhoek had demonstrated the capillaries, Pitcairne, by a kind of mathematical reasoning similar to that adopted by Harvey, had indicated the nature of the minute vessels through which the fine particles of blood must pass, and, in particular, he had established the view that there existed no gross anastomosis between the arteries and the veins, for which many persons contended, even of those who adopted Harvey's principle of circulation in a general way.¹

Appointed
professor at
Leyden

Pitcairne's eminence, as one of the protagonists of the Iatro-mathematical school, procured for him, in 1692, an invitation from the University of Leyden to assume the chair of medicine at that celebrated university, which he accepted. There he lectured till 1693, when he returned to Edinburgh. The fact that the infant school of Edinburgh furnished a professor to the old-established chair in Leyden must have given a great uplift to the former, still more the fact that Pitcairne had among his pupils many men who afterwards rose to fame, notably Mead and Boerhaave. Pitcairne's writings included numerous polemical pamphlets, poems and dissertations on medical subjects, as, for example, on the "Quantity of the Blood," the "Motion of the Stomach," and especially a dissertation upon the "Cure of Fevers." This was an important contribution to the medicine of that day, when fevers formed two-thirds of all diseases. Pitcairne adopted the attitude of Sydenham towards the treatment of fevers by methods of cold, depletion and evacuation. In 1695, he published at Edinburgh his "*Dissertatio de Curatione Februm, quae per Evacuationes Instituitur*," which was continued later by other theses on the same topic, the whole collection being finally published in a quarto volume at Rotterdam in 1701 under the title "*Dissertationes Medicæ*." His attitude is indicated by the title of an attack made on him by Sir Edward Eizat in "*Apollo Mathematicus, or the Art of Curing Diseases by the Mathematics*" (1695). This controversy was one of the causes of friction within the College of Physicians, to which reference is made later, and which caused Pitcairne's non-attendance at the meetings for several years.

Pitcairne had made only a short stay at Leyden, and had returned to Scotland for family reasons. His first wife having died, he had become engaged to Elizabeth, a daughter of Sir Archibald Stevensone, shortly before taking up his duties at Leyden in 1692, and her friends being unwilling for her to go to Holland, Pitcairne resigned his professorship and returned to Edinburgh in 1693.

His interest
in teaching
of anatomy

After the quarrel in the College of Physicians in 1695, and Pitcairne's adhesion to the party of Sir Archibald Stevensone, who absented themselves from the College meetings, Pitcairne associated himself with the College of Surgeons, where he entered as a Fellow on 16th October, 1701. Here he took great interest in forwarding the study and teaching of anatomy. From the fact of his delivering

¹ Pitcairne: "*A Dissertation upon the Circulation of the Blood through the Minutest Vessels of the Body*," Works, translated, London, 1715.

the epilogue at the two successful series of anatomical demonstrations held in 1702 and 1704 at the College of Surgeons, it is evident that he was the moving spirit in their organisation. The success of these demonstrations led to the appointment of Robert Eliot as "public dissector" to the Incorporation of Surgeons and the Town Council in the year 1705. In 1699, Pitcairne received the degree of M.D. from the University of Aberdeen.

About this time many of his Latin verses were written, notably a well-known poem on the death of Graham of Claverhouse, which was translated by Dryden. His Latin poems were highly valued in his time, although Dr. Johnson said "he did not allow the Latin poetry of Pitcairne so much merit as has been usually attributed to it," yet this poem, he admitted, "was very well."¹

His Latin
verses

Pitcairne seems to have been a man of great spirits and jovial habits, somewhat contemptuous of those with whom he did not agree, and inclined to treat them with weapons of wit and sarcasm which provoked fear and dislike among his enemies, although he had many devoted friends. He was an avowed Jacobite, a political position which was regarded with much disfavour in Scotland immediately after the Revolution, and he was a strong Episcopalian, reckless in jests against the Calvinistic Presbyterians who formed most of his contemporaries in Edinburgh.

His wit

As an illustration of the reckless manner in which he displayed his wit, Bower records an incident of Pitcairne being present at an auction sale where a large Bible failed to secure any bids. The Bible being put on one side by the auctioneer, Pitcairne's loudly expressed comment was "it was no wonder it stuck in their hands, for the word of the Lord abideth for ever," a jest which proved highly distasteful to his rigid Calvinistic neighbours. As a result, the Rev. James Webster publicly accused him of being a professed Deist, and Pitcairne brought an action against him, which was with difficulty settled amicably.²

On another occasion Pitcairne aroused much criticism by making his convivial habits, which were by no means unusual at that time, a cover for a political indiscretion. He had written to Dr. R. Gray in London, a letter which severely criticised the Government, and which fell into the hands of the Scottish Secretary. He was apprehended, lodged in the Tolbooth, and on 25th January, 1700, was brought before the Privy Council on a charge of contravening various statutes against Leasing Making, that is, venting and circulating reproaches or false reports against the Government. This was a crime for which many persons had suffered death in the recent "killing times."

Pitcairne could not repudiate the authenticity of his letter, he did not make any complaint as to the violation of private correspondence, and he refrained from any defence of his remarks. He adopted the unassailable ground that he had written in his cups, that he had no design against the Government, and that he had no remembrance of his letter, and he accordingly threw himself entirely on the mercy of the Council. He got off with a reprimand from the Lord Chancellor,

¹ Boswell: "The Life of Samuel Johnson," London, 1831, Vol. II., p. 293.

² Bower: "History of the University of Edinburgh," Vol. II., p. 134.



ARCHIBALD PITCAIRNE (1652-1713)

after giving bond with his friend Sir Archibald Stevenson under 200 pounds sterling, to live peacefully under the Government and to consult and contrive nothing against it.¹

Pitcairne died on 23rd October, 1713, aged 61, and was buried in Greyfriars churchyard. His tombstone was restored on 25th December, 1800, when the Restoration ceremony was celebrated. Pitcairne, being a fervid Jacobite, had left a jeroboam of wine with an Edinburgh wine merchant with directions that it should be opened "at the Restoration." The exiled house of Stuart never having been restored, the restoration of the tombstone was interpreted by Dr. Andrew Duncan and a large gathering of the Edinburgh medical fraternity, as satisfying the terms of Pitcairne's will, and his memory was then duly celebrated by the opening of the jeroboam and drinking of the contents.

Sir Thomas Burnet (1638-1704) was the son of an eminent lawyer, Robert Burnet, who was raised to the Scottish Bench in 1661 as Lord Crimond. The physician ultimately succeeded to the estate of Crimond in Aberdeenshire. A younger brother was Gilbert Burnet, professor of theology in Glasgow, historian, politician and Bishop of Salisbury. After obtaining the M.A. degree, Thomas Burnet studied medicine at Montpellier, where he graduated M.D. in 1659. He afterwards settled in Edinburgh, where he obtained a distinguished position as a physician. He became in succession physician to Charles II., James VII., William III., and afterwards to Queen Anne.

Sir Thomas
Burnet

His "Thesaurus Medicinæ Practicæ," a popular text-book on medicine in its time, was published in London in 1673, and had reached a sixth edition by 1703. His other chief work, "Hippocrates Contractus," was published at Edinburgh in 1685, and went through several editions in London, and, after his death, on the Continent. He was elected president of the College of Physicians in 1696, and dying in 1704, was buried in Greyfriars churchyard.

His works

Sir Archibald Stevenson (1629-1710), was the first president of the College, appointed in 1681. He was a son of the Rev. Andro Stevinson, one of the regents in the Town's College. He studied at Leyden in the year 1659, his name being entered in the Album as Archibald Stephanides, and he may have graduated at this university. He was the earliest recorded physician to George Heriot's Hospital, but does not seem to have left any literary remains.

Sir
Archibald
Stevenson

Sir Andrew Balfour (1630-1694), was the youngest son of Sir Michael Balfour of Denmiln, Fife, and was brother of Sir James Balfour, the Lyon King-of-arms. He graduated in Arts at St. Andrews, and, about 1650, proceeded to London, where he made the acquaintance of Harvey, Scarborough and other distinguished medical men. Afterwards proceeding to France, he studied medicine at Blois and Paris. He ultimately graduated at the University of Caen in 1661, when he was in his 31st year and had spent 11 years in the study of medicine. Returning to England in 1662, he became companion to the Earl of Rochester, and spent four years with him in foreign travel. Returning again to Scotland

Sir Andrew
Balfour

¹ Chambers : " Domestic Annals," Edinburgh, 1861, Vol. III., p. 223.

in 1666, he practised for a time as a physician in St. Andrews, employing his leisure hours in the study of anatomy and natural history.

About 1668, he removed to Edinburgh, and established a friendship with his kinsman Robert Sibbald, and with Patrick Murray, Laird of Livingstone, an association from which sprang the Physic Garden already mentioned. In Edinburgh he seems to have been highly successful, obtaining a large and lucrative practice, and he took a prominent share in the foundation of the Royal College of Physicians, of which he became the third president in 1685. He also took a great share in the preparation of the College's Pharmacopœia. In 1684 he gave a discourse before the College upon one of the Aphorisms of Hippocrates, which "was very satisfying to them." The only book associated with his name is a Continental guide-book, prepared for his friend Patrick Murray, in the form of three letters giving an account of London, Paris and other cities, advice for making the grand tour in France, and advice for travelling into Italy, which was published in 1700, after his death, by his son.

Sir David
Hay

Sir David Hay, whose name stands first in the list of Fellows, was a descendant of the house of Erroll, and resided in the High Street, near the entrance to the modern Cockburn Street. He was evidently considered one of the four chief physicians in Edinburgh, for along with Drs. Burnet, Stevenson and Balfour, he was consulted by the Court of Session "anent the true limits and distinctions of Chirurgery and Pharmacy" in an action raised by the chirurgeons of Edinburgh against the apothecaries in 1681. He was one of his Majesty's physicians-in-ordinary in 1684, and was presumably knighted on this account.

The general meeting of physicians which was held at Dr. Hay's house in connection with the Court of Session case regarding chirurgeon apothecaries, was of importance, because at this meeting Dr. Robert Sibbald "took the occasion to represent to them that this being the first tyme we had all mett, I thought it was our interest to improve the meeting to some furdur use, and I downright proposed we might take into consideration the establishment of a Colledge to secure our priviledges belonged to us as doctors, and defend us against the incroachments of the Chirurgeon Apothecaries, which were insupportable."

Dr. Matthew
Brisbane

Dr. Matthew Brisbane was a son of the Rev. Matthew Brisbane, parson of Erskine, and graduated M.D. at Utrecht in 1661. Although he was one of the original Fellows of the College of Physicians, he, along with Sir David Hay, declined to pay his share of the preliminary expenses, and these two were accordingly regarded as honorary Fellows. He does not appear to have taken much interest in the College, and he moved to Glasgow, joining the Faculty of Physicians and Surgeons there, and becoming town's physician to Glasgow in 1682. He was involved in the famous Bargarran witchcraft case of 1696, and his son, Dr. Thomas Brisbane, was the first professor of anatomy and botany in the University of Glasgow.

Dr. James Livingstone was a councillor and censor of the College at the time of its erection, but he died in the following year.

Dr. Robert Crawford appears to have studied medicine at Leyden in 1668, and was a member of the committee appointed to produce the Pharmacopœia.

In 1684, he gave a discourse upon "The Nature and Use of the Pancreatic Juice," but his name does not appear in the minutes after this year, and he probably died soon afterwards.

Dr. Robert Trotter (1648-1727), graduated M.D. at the University of Leyden in 1672. He was one of the Pharmacopœia committee, took part in the discourses of the College, and was elected president in 1694 and 1695. He had a second period of office as president from 1700 to 1702. During his presidency in 1695, a schism took place in the College. The dispute appears to have arisen originally over so apparently small a matter as to whether the examiners for the admission of Fellows should be appointed as each candidate presented himself, or whether a new system should be introduced appointing examiners for a whole year. Dr. Trotter, Sir Thomas Burnet, Sir Robert Sibbald, and Drs. St. Clair, Cranston, Halket, Lauder, Eccles, Dickson, Olyphant and Smelholm had a meeting in "ye President's lodging," and decided to abide by the original law, but another section of the Fellows, including Sir Archibald Stevenson and Dr. Pitcairne, were anxious to have the law changed.

The "Ryot
in the
Colledge "

Sir Archibald Stevenson took an extreme step to prevent the meeting being held, for he "denyed ye keyes of the Colledge," which were in his possession, and as the College at that time formed part of the house that he occupied, the meeting had to be held in Dr. Trotter's house. The dispute thus started, continued for several years, and involved a lawsuit to recover the keys and papers of the College from Sir Archibald Stevenson. The College was also divided upon the subject of the treatment of fevers, Pitcairne being the chief exponent of Sydenham's views for treating these by evacuant remedies. His "Disputatio de curatione Febrium," published in 1695, was attacked by various members of the other party, notably by Sir Edward Eizat in his "Apollo Mathematicus," which was answered by a supporter of Pitcairne, Dr. George Hepburn, a recently elected Fellow of the College, in another pamphlet bearing the title "Tarugo Unmasked, or an Answer to a late Pamphlet, entitled Apollo Mathematicus."

This was also published in 1695, and in it Dr. Hepburn "endeavoured to expose the cunning and address of Sir Edward Eizat in studying to attain his objects as a Medical Practitioner." This pamphlet got Dr. Hepburn into serious trouble, for a committee was appointed to examine the pamphlet and reported that it was censurable. The author was accordingly cited to appear before the College and "to answer what is libelled against him." Pitcairne attempted to stay these violent proceedings by presenting a protestation against the president (Dr. Trotter). This protestation being reported by the committee to be "a calumnious, scandalous, false and arrogant paper, refusing the authority of the President and Colledge," the College suspended Dr. Pitcairne "from voting in ye Colledge, or sitting in any meeting thereof, till he give satisfaction to ye Colledge." In the same year (1695) Dr. Olyphant, the treasurer, was also suspended for contumacy.

In the following year Pitcairne published a severe criticism of Sibbald's "Prodromus Historiæ Naturalis Scotiæ," which presumably was a retaliation

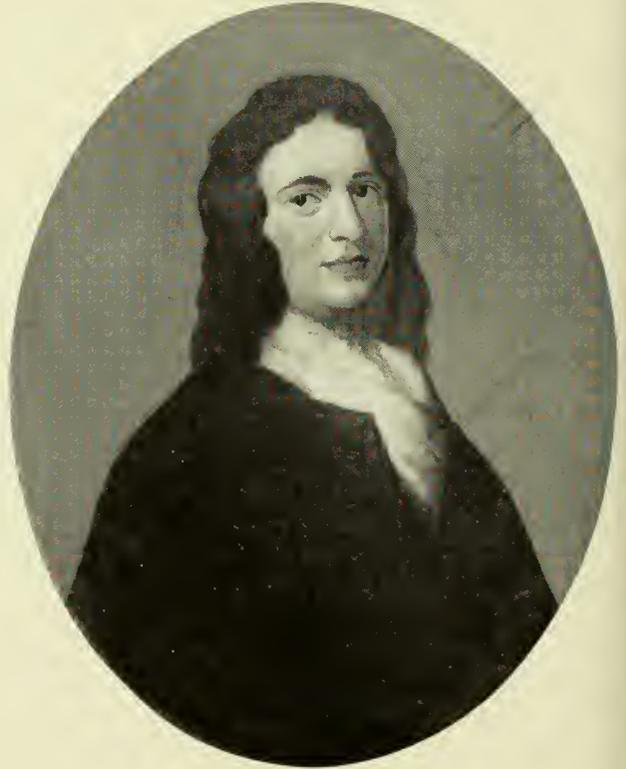
for Sibbald's having ridiculed Pitcairne's application of geometry to physic. In December, 1695, when the College met to carry through the annual elections, Dr. Trotter was re-elected president, but the meeting, which is in a later minute designated as "a ryot in the Colledge," was so turbulent that it was necessary to secure the interference of one of the baillies and some of the town officers. The faction to which Pitcairne belonged accordingly withdrew to the house of Sir Archibald Stevensone, and elected him as their president.

Peace
restored

Matters were not composed till the year 1704, when in the presidency of Dr. Dundas, a vote of amnesty was passed, and the suspension of the recalcitrant members was removed. After a long absence, Sir Archibald Stevensone and Dr. Pitcairne again took part in the meeting of 30th November, 1704, and the elections were quietly carried through, Dr. Halket being elected president.

Dr. James
Halket

Dr. James Halket is mentioned several times in the minutes of the Royal College of Physicians. He was born in 1655, studied at Leyden in 1675, and as the last mention of him in the minutes is made in the year 1710, he probably died soon afterwards. The College had early begun to arrange for discourses by various Fellows in the College, and, in 1684, Dr. Halket gave a discourse *De Peculiaribus Infantium Morbis*, while in 1706, as president, he again gave a discourse on the treatment of Volvulus. He was president from 1704 to 1706, and in 1705, along with Dr. Dundas, he conducted the examination of Mr. David Cockburn, the first person to receive the degree of M.D. from the Town's College.



ROBERT CLERK

Flourished about 1689. He was father of Dr. John Clerk, later
President of the Royal College of Physicians

(Original in the Royal College of Surgeons, Edinburgh)

The following is an account of a consultation between Halket, Robert Clerk, surgeon, and Mr. Hamilton, regarding the fatal illness of Lady Clerk of Penicuik :—

“We had called for one of the chief Physitians in Town, one Doctor Hackete, and two of the chief chyrurgeons, my uncle Robert Clerk, and one Mr. Hamilton, a man much employed in Midwifery. They took all the pains about her they cou'd think of, but I am afraid they were too hasty in their operations, by which she lost a vast deal of blood. The placenta, it seems, was adhering to the uterus, and this they thought themselves obliged to bring away by force.”¹

Dr. Matthew Sinclair, or St. Clair, had been a student at Leyden in 1674. He gave a discourse on Dysentery, was several times on the Council, and was elected president four times: in 1698, 1699, again in 1708, and once more in 1716. He was the father of Dr. Andrew St. Clair, who, in 1726, became professor of institutes of medicine in the university. He died in 1728, the last survivor of the 21 original Fellows.

Dr. James Stewart, who had studied medicine at Leyden in 1674, was one of the first councillors, but he died early in 1684.

Dr. Alexander Cranstone was also one of the original councillors and afterwards treasurer of the College. In 1684, he gave a discourse on “Mental Alienation,” and he seems to have been a regular attender at the College meetings up to 1698, when he ceased attending, and presumably died shortly afterwards.

Dr. John Hutton was the first treasurer of the College, but in May, 1682, he resigned office as he was “going furth the Kingdome.” He was probably the same John Hutton who joined the Royal College of Physicians of London in 1690, and who was a Doctor of Medicine of Padua and physician to King William III.²

Dr. John M'Gill was a consistent attender at meetings in the early years of the College, and he gave a discourse, *De Chilificatione*, in 1684. Later, his name disappears from the minutes. He is not to be confused with John M'Gill who was an early professor of anatomy to the surgeons and to the Town's College, and who joined the College of Surgeons in 1710.

Dr. John Learmonth was a student at Leyden in 1675, and took part in the preparation of the Pharmacopœia.

Dr. William Stevensone was the first librarian of the College, appointed in 1683, and had previously succeeded Dr. Hutton as treasurer. He does not appear to have been related to Sir Archibald Stevensone. His name is not mentioned in the minutes after 1684. He must have been a man of Covenanting sympathies, for Lord Fountainhall records that the Physitians got an order from Court out of pique to Stevensone younger, and to others, that no Physitian should practise without taking “The Test.”

Dr. William Wright was associated in the preparation of the Pharmacopœia, but does not appear to have held any office in the College.

Dr. Patrick Halyburton was also a member of the Pharmacopœia committee.

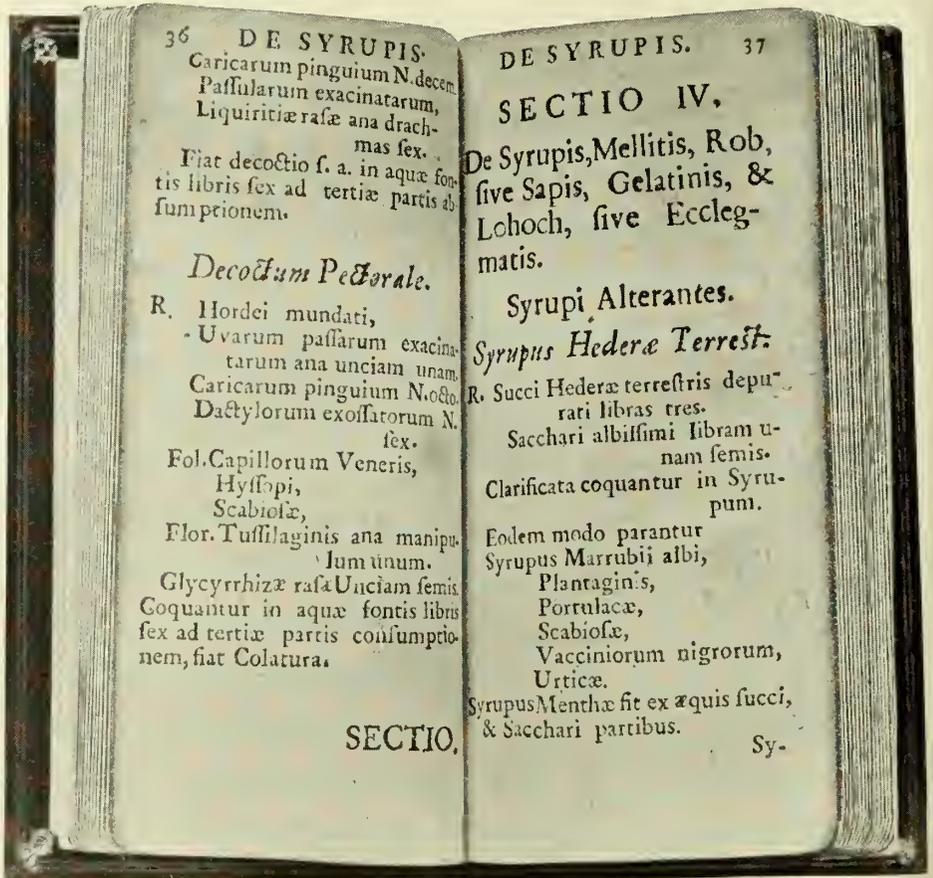
Dr. William Lauder was a student at Leyden in 1674, and served for a time on the Council of the College.

¹ “Sir John Clerk's Memoirs, 1676-1755,” Scottish Hist. Soc., Edinburgh, 1892, p. 40.

² Munk: “Roll of Royal College of Physicians,” London, 1878, Vol. I., p. 481.

Completion
of the Phar-
macopœia

During the time of Sir Robert Sibbald's presidency of the College of Physicians the Pharmacopœia was completed. The first Pharmacopœia to appear in Britain had been that of London in 1618, but its formulæ were not binding upon the apothecaries of Scotland. From 1699, when the Edinburgh Pharmacopœia first appeared, its successive editions were in general use throughout Scotland until the British Pharmacopœia of the General Medical Council was issued in 1864. Subsequent editions of the Edinburgh Pharmacopœia appeared in 1722, 1736, 1744, 1756, 1774, 1783, 1792, 1795, 1803, 1804, 1817, 1839 and 1841.



EDINBURGH PHARMACOPŒIA, 1699 (actual size)

The chief share in revising the Pharmacopœia for the second edition was taken by Dr. Learmonth and Dr. John Clerk. The latter was the son of Robert Clerk, surgeon, and received an M.D. degree (without examination) from St. Andrews University in 1711. He presented a report in 1721 from the College to the Town Council dealing with the sanitation of the city, and was president of the College in 1740.

Another important activity of this College consisted in the provision of a Dispensary for attendance and supply of medicines to the sick poor, and a Repository for furnishing medicines to the sick poor was set up in 1708. Provision of a dispensary

At the third meeting of the College in 1682, two physicians were appointed to serve the poor of the city and suburbs, and these appointments continued to be made regularly for many years.



JOHN CLERK (1689-1757). PRESIDENT, R.C.P. 1740-1744
(Original in the Royal College of Physicians, Edinburgh)

About 1725, the plan of having an infirmary was suggested by the College to several well-disposed persons, and a public meeting was called to make the proposal generally known. At a meeting held on 1st February, 1726, it was minuted that "The President represented to the Colledge That according to their desire He and severall of the members had sett on foot a Subscription for Erecting Foundation of the infirmary

and Maintaining ane Infirmary or Hospitall for the sick poor, and had pretty good Success, and Recommended to all the members of the Colledge To use their best endeavours To procure more Subscriptions for accomplishing So good and Charitable a work."

The collection of subscriptions by the College proceeded, and on 1st August, 1727, the College bound itself "that one or more of their members Shall attend the said Hospitall faithfully and freely whout. any prospect of Reward or Sallary until the Stock of ye sd Hospitall shall be so Increased that it can afford a Reasonable allowance for one or two phisitians." In November, 1727, the College sent a deputation to the General Assembly of the Church of Scotland asking the support of the Church for the proposed charity, and on 5th August, 1729, a small temporary hospital with six beds was established at Robertson's Close in which the sick poor were attended by the Fellows of the College.

When the subscription list had reached the sum of £2000, the College of Physicians called the contributors together, a committee was elected, and the infirmary was incorporated by Royal Charter in 1736. In recognition of the important share which had been taken by the College in the institution of the infirmary, a letter was sent by the Managers of the Royal Infirmary and was read at a meeting of the College on 7th February, 1738, which stated that the managers had resolved that for the future none but Fellows of the College were to act as physicians to the Royal Infirmary.

Continued
help to the
infirmary

The help afforded by the College to the rising infirmary did not cease here, for, immediately after the laying of the foundation stone in 1738, the College voted 30 guineas to the funds of the infirmary, and, in 1742, ordained that every Fellow should, on admission to the College, pay 20 shillings to the infirmary, while in 1785 the College again voted 50 guineas to the funds. Again, in 1819, the College voted 50 guineas to the infirmary, and when it had been decided to remove the institution to a new site, the College voted £1000 in aid of this object in 1868, and next year agreed to furnish two medical wards in the new building. Again, in 1920, when the needs of the infirmary were very great after the War, the College voted in its aid a donation of 1000 guineas, and a similar sum was donated towards an extension of the infirmary in 1930.

The dis-
courses

An important early activity of the College of Physicians, which had a bearing on the development of medical teaching in Edinburgh, was the institution of conferences or discourses. Sibbald, in his Autobiography, takes the credit for having commenced these, and says:—

"In the yeer 1680, I induced some of the Physitians in Town, especially Doctor Burnett, Doctor Steenson, Dr. Balfour, and Doctor Pitcairne, to meet at my lodging once a fourthnight or so, wher we had conferences. The matters we discoursed upon, was letters from these abroad, giving account of what was most remarkable a doing by the learned, some rare cases had happned in our practice, and ane account of Bookes, that tended to the improvement of medicine or naturall history, or any other curious learning, and were continued till the erection of the Colledge of Physitians. Severall

of the discourses are inserted in a book I call *Acta Medica Edinburgensia*. They were forborne then upon the introducing of such conferences once a moneth in the Colledge."¹

A few years after the foundation of the College, on 7th January, 1684, eleven Fellows, including Stevensone, Balfour, Sibbald, Crawford, Trotter, St. Clair, Cranstoun, Pitcairne, and three others met, and the president, Sir Archibald Stevensone, gave the first discourse on *Polybus Cordis*. This was the first of a series of discourses which the College had resolved to hold monthly.

The discourses were continued regularly every month during this year, and included the following subjects: February, Dr. Balfour on *The Hippocratic Aphorism 22, Sect. I.*; March, Dr. Sibbald, *De Concha Anatifera*; April, Dr. Crawford, *De Natura et Usu Succu Pancreatici*; May, Dr. Trotter, *De Essentia Febris*; June, Dr. St. Clair, *De Dissenteria*; July, Dr. Cranstoun, *De Alienatione Mentis*; September, Dr. Learmont; October, Dr. Halket, *De Peculiaribus Infantium Morbis*; November, Dr. M'Gill, *De Chilificatione*; December, Dr. Burnet, *De Pleuritide*. Dr. Halyburton also gave a discourse *De Febris Intermissionis Natura et Curatione*. The discourses seem gradually to have become less regular, and in December, 1696, when Sir Thomas Burnet was president, it was decided to revive the discourses, and Sir Robert Sibbald gave a discourse in the following February, *De Generatione Univoca*. The discourses seem to have been held at irregular intervals up to the year 1712.²

At an early stage of its existence, on 5th February, 1683, the College had agreed to the formula for a licentiate's diploma, and in order to prevent irregular practice in Edinburgh and its neighbourhood, the College insisted that all persons desiring to practise as physicians in Edinburgh and its vicinity should first be recognised by them.

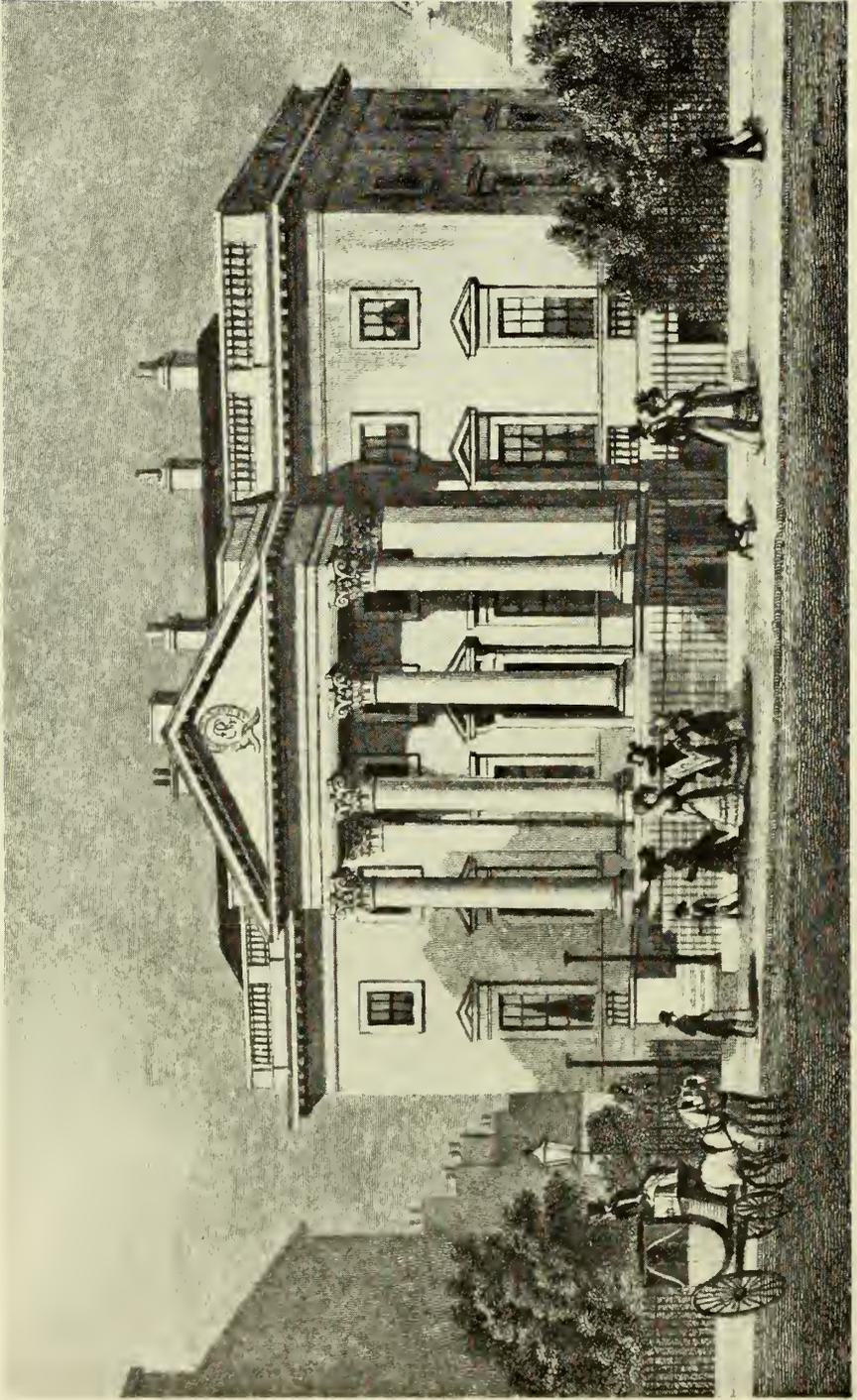
The College
grants
licences

Up to 1829, the College issued a licence to practise in Edinburgh and its neighbourhood; but this was given as the charter required to all university graduates, and was conferred on no others. After the passing of the Medical Act of 1858, which abolished territorial restrictions, the old order of licentiates of the College ceased to exist. On 5th April, 1859, it was decided by the College to examine and confer a licence on gentlemen who had not previously obtained a university degree. This proposal was at first strongly resisted by the university and others.

This power of licensing to practise was already exercised by the College of Surgeons in Edinburgh, and by the Faculty of Physicians and Surgeons in Glasgow, and the College of Physicians accordingly adopted the powers of licensing which had been conferred upon it by its charter. After a "year of grace," in which the licence was conferred without examination upon applicants already in practice, the licence was conferred only following upon the successful passing of an examination held by four examiners appointed by the College.

¹ "The Autobiography of Sir Robert Sibbald, Knt., M.D.," printed 1833, p. 28.

² Peel Ritchie: "The Early Days of the Royall Colledge of Phisitians, Edinburgh," Edinburgh, 1899, p. 124.



HALL OF THE ROYAL COLLEGE OF PHYSICIANS IN GEORGE STREET, EDINBURGH, FROM 1781 TO 1843

From 1859 onwards, further arrangements were made with the Royal College of Surgeons, Edinburgh, and the Faculty of Physicians and Surgeons of Glasgow, both of which had the right to license in surgery. In combination with each of these bodies, the College of Physicians granted a double qualification, conferring upon the holder the right to practise all branches of the profession in every part of Her Majesty's dominions. This enabled the licentiates to register two separate qualifications as required by the Medical Act. In 1884, the double qualifications were superseded by the triple qualification, which conferred the licence of all three corporations after examination.¹ On 2nd February, 1886, it was resolved by the College to admit women to the examinations for the conjoint qualification.

In August, 1895, a School of Medicine of the Royal Colleges was constituted jointly by the Royal College of Physicians and the Royal College of Surgeons, with the object of rendering assistance to the general body of lecturers constituting the extra-mural school, and of exercising a certain amount of authority over these by granting recognition to those of their Fellows who applied to be examined for their fitness to act in this capacity.

School of
Medicine of
the Royal
Colleges

In 1683, the formation of a library occupied the attention of the Fellows, and this library has steadily grown till, at the present time (1931), it includes over 100,000 volumes. As a consequence of its prolonged existence, this library contains many old books of great value.

The library

The meetings of the Fellows of the College of Physicians were at first held in the private houses of the officials, but on 17th April, 1698, the College resolved to buy a house of its own, and, in 1704, it acquired the house and grounds of Sir James Mackenzie in Fountain Close, between the High Street and Cowgate. Seven years later, the College acquired the neighbouring land belonging to Baillie Jeffrey, and laid out a garden and shrubbery, extending down to the then fashionable Cowgate. This was the envy of the neighbouring peers, to whom in several cases the privilege of walking in the garden was permitted as a favour.



SEAL OF THE ROYAL COLLEGE OF
PHYSICIANS OF EDINBURGH

About the same time, the College converted certain ruinous buildings bordering on the Cowgate into a bath-house, which was open to the inhabitants generally at a charge of twelve shillings Scots, and one penny to the servant, for each ablution, or at an annual charge of one guinea. The bath, however, was let in 1714, and shortly after abandoned.

The bath

¹ "Historical Sketch and Laws of the Royal College of Physicians of Edinburgh," Edinburgh, 1925, p. 56.

The hall

In 1722, a new hall was erected in the garden, but the building appears to have been unsatisfactory, for, in 1766, it became necessary to apply to the managers of the Royal Infirmary to deposit the library in a spare apartment of that building, and to hold the meetings of the College in the managers' board-room. These requests were granted, and the privilege was continued to the College for 15 years. In 1781, the premises in Fountain Close were sold, and the library and meetings of the College were transferred to a new hall near the east end of George Street. The foundation stone of this hall had been laid on 27th November, 1775, by the president, Dr. William Cullen. In 1843, the George Street hall, which had been a very fine building, was sold to the Commercial Bank for £20,000, and from this transaction, the prosperity of the College dates. The present hall was occupied in 1846.¹



SEAL OF THE
ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH

¹ "Historical Sketch and Laws of the Royal College of Physicians of Edinburgh," Edinburgh, 1925, pp. 39. *et seq.*

CHAPTER XIII

FOUNDATION OF THE FACULTY OF MEDICINE IN THE UNIVERSITY AT EDINBURGH

THE development of a Faculty of Medicine in the Town's College, or University of Edinburgh, followed about half a century after the foundation of the Royal College of Physicians, and was mainly due to Fellows of the latter. In the early appointment (1685) of Sibbald, Pitcairne and Halket as "professors of medicine," the Town Council had evidently envisaged the commencement of a complete medical school, and they had given much help to the Physic Garden started by Sibbald and Balfour, as well as to Pitcairne's plan of anatomical lectures by the surgeons.

Beginnings
of medical
teaching at
Edinburgh

An acquaintance with the human body had early been regarded by the Town's College as a matter of some importance in a general education. It appears from a report of Commissioners appointed by the various Scottish universities, who met at Edinburgh in July, 1648, that anatomy was a prescribed part of the ordinary discipline in the arts course, for at the end of the third year of study the anatomy of the human body was described.¹

It is possible that some of the surgeons may have assisted in these exercises. At all events, the first important step in the foundation of a medical school had been the development of anatomical instruction in the hands of the Surgeons' Incorporation from the beginning of the 16th century, as already described. The physicians of Edinburgh in the 17th century had developed the teaching of botany in the Physic Gardens at Holyrood and at Trinity Hospital.

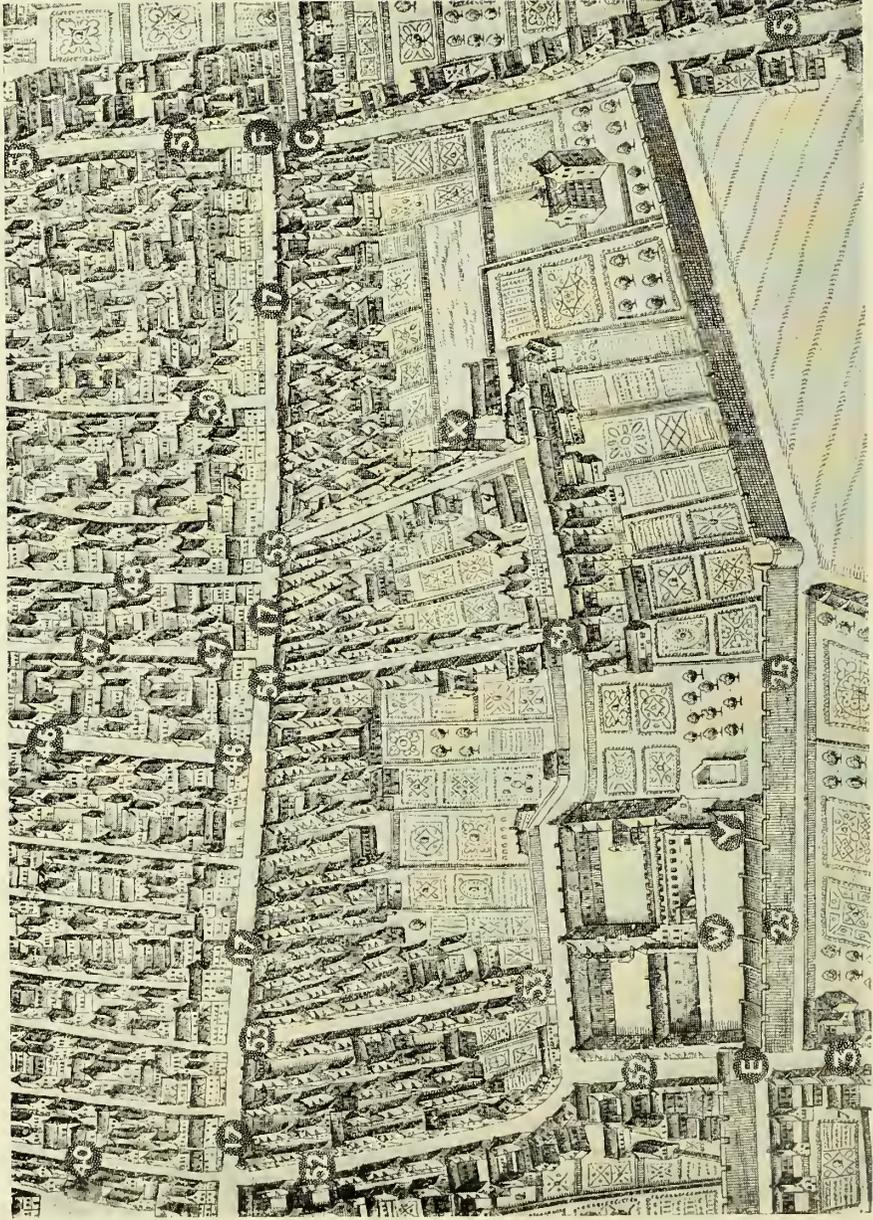
A limited amount of instruction on medicine was given by Alexander Monro in his comprehensive course of anatomy, from the time when he was appointed professor of anatomy in the Town's College in 1720. The steps leading up to this have been described in Chapter XI. At the same time, Dr. Charles Alston was giving a regular course of lectures on materia medica and botany.²

The surgeon-apothecaries had already delivered, from time to time, a course of chemistry which consisted in the exhibition of a variety of pharmaceutical processes by a lecturer appointed from the Incorporation of Surgeons. An advertisement of 1702, intimates "the course of chemistrie at the laboratorie in the chyrurgeon apothecaries' hall, Edinburgh, will begin this year upon Tuesday the fourth day of May."³

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. I., p. 246, and Appendix 3.

² Bower: *Op. cit.*, Vol. II., p. 180.

³ *Edinburgh Gazette*, 23rd March, 1702. (Quoted by Bower, *Op. cit.*, Vol. II., p. 125.)



THE TOWN'S COLLEGE IN 1647

From Gordon of Rotherham's Plan of Edinburgh

- E Potterrow port.
- F Cowgate port.
- G St. Mary's port.
- H THE COLLEGE.
- I The Kirk o' Field.
- J Potterrow.
- K Pleasance.
- L 17 Cowgate.
- M Town Wall.
- N 40 Bothwick's Close.
- O 48 Niddrie Wynd.
- P 47 Dickson's Close.
- Q 49 Blackfriars Wynd.
- R 50 Gray's Close.
- S 51 St. Mary's Wynd.
- T 52 Horse Wynd.
- U 53 Collette Wynd.
- V 54 Robertson's Close.
- W 55 High School Wynd.
- X 56
- Y 57
- Z 58
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- 2 60
- 3 61
- 4 62
- 5 63
- 6 64
- 7 65
- 8 66
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- 42 100

The Town Council, in 1713, decided to appoint a professor of this subject. It may be recalled that Van Helmont, who is regarded as the last of the alchemists, had died in 1644, and Glauber, who is usually looked upon as the first of the chemists, had died in 1668. Sylvius, at Leyden, about the middle of the 17th century, had been one of the first to see the importance of the relationship between chemistry and medicine, and he and his pupils, De Graaf, Stensen, etc., had investigated the secretions of the glands. Boerhaave's *Elementa Chimiæ*, published in 1732, was one of the first text-books on this subject, so that the Town Council of Edinburgh were very early in the field of chemistry with their professorial appointment.

Professor of
chemistry

Dr. James Crawford was elected professor of physic and chemistry in the University of Edinburgh on 9th December, 1713, the same year in which a professorship of chemistry was founded at Cambridge. Dr. Crawford had studied under Boerhaave at Leyden, where he graduated M.D. in 1707. Returning to Edinburgh, and being licensed to practise by the College of Physicians in 1710, he became a Fellow of the College in 1711. A testimonial as to his fitness for the post was furnished by the College of Physicians to Principal Carstares, and upon Crawford's application to the Town Council, he was duly elected professor in the Town's College, where two rooms were allotted to him, although he was to receive no salary. It appears that he only held a class of chemistry sometimes, so that the encouragement which he received was not sufficient to induce him to deliver an annual course.¹

James
Crawford

One of Crawford's pupils was Alexander Monro, and some idea of the teaching can be obtained from the fact that Monro's father provided him with "such a chemical apparatus as enabled him to repeat at home the experiments which Dr. Crawford exhibited in the class."²

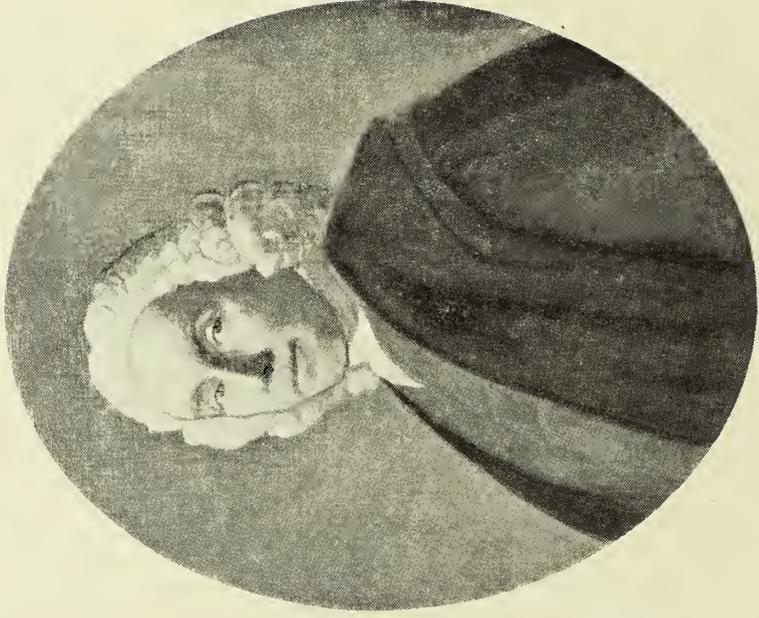
The next step in the development of medical teaching in the Town's College was the appointment of Alexander Monro (1697-1767), as professor of anatomy.

The appointment of lecturers on anatomy by the Incorporation of Surgeons, and their recognition by the Town Council, which had begun in the person of Monteath in 1697, and had been continued by Robert Eliot, Adam Drummond, and John M'Gill, has been described in Chapter XI. On 22nd January, 1720, Drummond and M'Gill, conjoint professors of anatomy in the city and college, demitted office and recommended Alexander Monro as a fit person for the profession of anatomy. He was also recommended to the Town Council by the Incorporation of Surgeons, and was accordingly appointed. He was the son of John Monro, a surgeon who had served in the army under William of Orange, had joined the Incorporation of Surgeons, and had been Deacon in 1712.

Anatomy

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., p. 126.

² Bower: Op. cit., Vol. II., p. 170.



ALEXANDER MONRO (*primus*)
(1697-1767)
(Original portrait in the Royal College of Surgeons, Edinburgh)



JOHN MONRO
Deacon of Surgeons 1712; died about 1737
(Original portrait in the Royal College of Surgeons, Edinburgh)



ALEXANDER MONRO (*secundus*)
(1733-1817)

(After a portrait by Sir Henry Raeburn.)



ALEXANDER MONRO (*tertius*)
(1773-1859)

(Original portrait in the Royal College of Surgeons, Edinburgh)

John Monro had taken great pains with the education of his son Alexander, who had gone through an arts course at Edinburgh, acted as apprentice to his father, and was next sent to prosecute the study of surgery at London and on the Continent.

Alexander
Monro

In Edinburgh, Alexander Monro had availed himself of such facilities as existed for medical study, attending the pharmaceutical demonstrations of Professor George Preston, the chemistry course of Dr. James Crawford, and the anatomical demonstrations of Drummond and M'Gill. After finishing his apprenticeship with his father, he went to London in 1717, where he lodged with an apothecary, saw his practice, and attended lectures on natural philosophy by Messrs. Whiston and Hawksbee. The special attraction for him in London, however, was attendance on the anatomical demonstrations and surgical teaching of William Cheselden. Here he nearly lost his arm through a dissecting wound.

In the spring of 1718 he went to Paris, where he attended botanical lectures and accompanied the physicians and surgeons on their visits at La Charité and L'Hôtel Dieu, and studied accouchements under M. Gregoire and bandages under M. Cessau. In the autumn of the same year he set out for Leyden, where he studied chemistry and medicine under Boerhaave, as well as attending the clinical lectures in the hospital. Returning to Edinburgh in the autumn, 1719, he was admitted a member of the Incorporation of Surgeons.

After receiving his commission as professor from the Town Council in January, 1720, he commenced to prepare his course of lectures for the following October. Great exertions were made to procure a good attendance upon his introductory lecture, which was regarded as so important a step in the development of the Edinburgh school. The Lord Provost with the magistrates, the president and Fellows of the Royal College of Physicians, and the Deacon and members of the Incorporation of Surgeons, together with a large number of Monro's friends, appeared to hear his first lecture, and it is no wonder that though Monro had committed the lecture to memory, the presence of this audience banished it from his mind. He apparently, however, acquitted himself so well in an extemporaneous lecture, that he resolved to adopt the same method for the remainder of his course. The number of students who attended in the first year was 57.

His course of
instruction

Monro (*primus*), being appointed professor of anatomy, immediately introduced an extended course of instruction lasting from October to May, and embracing the following subjects: He began with a history of anatomy, which he apparently treated very fully. Next he took up osteology, dealing not only with the form and structure of the bones, but also with their uses and the diseases and accidents to which each is liable. Next he demonstrated, on adult subjects, the muscles, viscera and brain, and, on the bodies of children, the nerves and blood-vessels, again dealing not only with anatomy as we regard it, but

with disease in the various organs. He further illustrated the anatomy of the human body by the dissection of various quadrupeds, fowls and fishes, comparing the structure and uses of their organs with those of the human body. He proceeded then to consider the diseases for which chirurgical operations were commonly undertaken, and to demonstrate the operations on the cadaver, as well as the bandages and various instruments and appliances used in surgery. Finally, he concluded his winter course with some general lectures on physiology.¹

After a probationary period of two years, the Town Council promoted Monro to the position of "sole professor of anatomy within this city and college of Edinburgh, and that *ad vitam aut culpam*." He was thus the first medical professor who had been appointed for life. In April, 1725, following upon a riot by the mob directed against supposed body-snatching, Monro decided to remove his specimens within the walls of the Town's College, for he had apparently up to this time lectured in the Surgeons' Hall. On 25th October, 1725, the Town Council granted him a theatre for public dissections for teaching the students under his inspection. In Edgar's map of Edinburgh (1765), a round building is shown to the east of the Town's College, which is indicated as Monro's theatre, and this building was probably that erected for him by the Town Council at this time.

His new
theatre

The chief work published by Monro was a treatise on the anatomy of the bones, brought out in 1726, which was later, in 1759, re-published by M. Sue at Paris with elegant engravings. Numerous other short papers were brought out by him at various times, and were published in a collected form by his son in 1781.

Monro played an important part in assisting Provost George Drummond in the opening of the small house in Robertson's Close, which was first used as the Infirmary, and afterwards in the erection of the permanent building of which the foundation stone was laid in August, 1738.

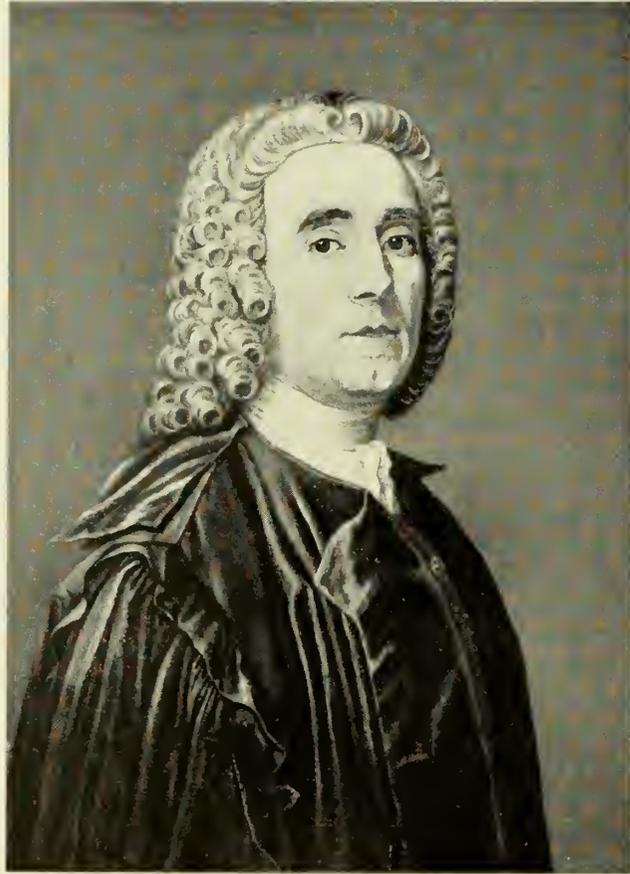
In 1756, the University of Edinburgh conferred upon him the degree of Doctor of Medicine, and in the same year he was licensed by, and became a Fellow of, the Royal College of Physicians. In the following year his youngest son, Alexander Monro (*secundus*), was appointed joint professor of anatomy, and to the latter he resigned the work of teaching the class, although he still continued to give clinical lectures at the hospital. He died on 10th July, 1767.

The number of students attracted to the class of anatomy in the Town's College had been so satisfactory that on 12th August, 1724, the Town Council, on the recommendation of the Royal College of Physicians, "considering the great benefit and advantage that would accrue to this city and kingdom, by having all the parts of medicine taught in this place," decided to appoint a professor to teach

Institutes
and practice
of medicine

¹ "Works of Alexander Monro," published by his son, Edinburgh, 1781.

the institutes and practice of medicine. For this post William Porterfield, a Fellow of the Royal College of Physicians, was recommended to the Town Council by the president, censors and other members of this college, as a person well fitted and qualified for teaching medicine in all its parts. They therefore appointed him on the condition that he would "give colleges (courses) regularly, in order to the instructing of students in the said science of medicine."



ANDREW PLUMMER (died 1756)
(Original picture in the possession of Major C. H. Scott Plummer)

William
Porterfield

Porterfield had graduated at Rheims in 1717, and had been licensed to practise by the Royal College of Physicians in 1721. He is described in his commission as being "disengaged from the necessary business of all other public professions," from which it may be assumed that he had, at least to a large extent, given up practice. He is now best known by an excellent treatise on the eye, which he published in 1759. The Town Council appear to have considered that Porterfield's

lectures on the institutes and practice of medicine would be sufficient to cover the whole of medicine, but Bower is inclined to think that he never delivered a course of lectures.¹ At all events, less than two years after his appointment, he was replaced, apparently quite amicably, by another set of professors.



JOHN RUTHERFORD (1695-1779)

(Grandfather of Sir Walter Scott)

(Original picture by Allan Ramsay, in the possession of Miss Russel)

On 11th November, 1724, that is, three months after Porterfield's appointment, a memorial was presented to the Town Council by Drs. John Rutherford, Andrew St. Clair, Andrew Plummer and John Innes, Fellows of the Royal College of Physicians, showing that they had "purchased a house for a chemical laboratory, adjoining to the college garden," and craving that they might be allowed the use of the garden for supplying chemical medicines and instructing students of medicine.

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., pp. 201-203.

They pointed out that the garden was in confusion, and requested that they might have it on the same terms as Mr. Preston had it before. The Town Council granted their petition, and they apparently commenced to teach.

Four professors of medicine and chemistry

In another petition, dated 9th February, 1726, the same four physicians declared that they had undertaken the professing and teaching of medicine and had carried it on with some success. They further indicated that if they were allowed to profess and teach medicine *in the college*, this would tend to promote it more than if it were "taught and professed in the manner hitherto undertaken." This reflected somewhat upon Porterfield and Crawford, although their names were not mentioned either by the petitioners or by the Town Council. The Council in their reply considered that the petitioners had given the clearest proof of their capacity and ability to teach medicine "with good success and advantage, and with the approbation of all the learned in that science here," and they accordingly appointed them professors of medicine and chemistry in the college of Edinburgh. They were appointed, like Monro, *ad vitam aut culpam*, but it was expressly stipulated that they should not have any salary.¹

The four colleagues, who proposed to rear medicinal plants in the college garden, apparently intended to lecture both on chemistry and materia medica, as well as upon practice of medicine and institutes or theory of medicine. Between 1724 and 1726 they must have lectured as extra-mural teachers either in their own lodgings or in the small house next the college garden where the chemical laboratory was established. After 1726, they presumably had rooms in the Town's College, and they divided the subjects between them. Dr. St. Clair lectured upon the theory or institutes of medicine (physiology), by explaining the *Institutiones Medicæ* of Boerhaave, while Dr. Rutherford dealt with the practice of medicine, using as a text-book the *Aphorismi de Cognoscendis et Curandis Morbis* of the same author. Plummer and Innes apparently took the subjects of chemistry and materia medica between them.

John Rutherford

Dr. John Rutherford (1695-1779), who had graduated at Rheims in 1719, has a special claim to remembrance as having been the first professor to deliver clinical lectures in the Infirmary, commencing these immediately after the disturbance caused by the Rebellion had passed off in 1746, when his class was attended by a great many students. His lectures appear to have been greatly appreciated, and a pupil, the celebrated Dr. William Buchan, said of him: "Rutherford is slow, but absolutely sure." John Rutherford was the maternal grandfather of Sir Walter Scott, and his son, Dr. Daniel Rutherford, at a later date acted as professor of botany, and was celebrated as the discoverer of nitrogen gas. John Rutherford continued to lecture on clinical medicine after he had ceased to lecture on practice of medicine.

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., pp. 204-208.

Dr. Andrew St. Clair was the son of Dr. Matthew St. Clair, one of the original Fellows of the Royal College of Physicians. He graduated M.D. at Angers in 1720. Andrew
St. Clair

Dr. Andrew Plummer had commenced study at the University of Edinburgh, and afterwards repaired to Leyden, where he studied medicine under Boerhaave, and took the degree of M.D. in 1722. He was specially interested in chemistry, and a great part of his course consisted in showing "a variety of useful and amusing processes," but a considerable portion of the course also consisted in teaching pharmacy. His name is preserved in a pill of antimony and mercury still known as "Plummer's Pill," and he was the first person to analyse the water of Moffat Spa, and to recommend patients to betake themselves to that health resort.¹ Plummer died on 16th April, 1756. Andrew
Plummer

Dr. John Innes had graduated M.D. at Padua in 1722. He apparently acted as colleague to Dr. Plummer in chemistry and materia medica, although it is not certain how they divided their work, and little is known in regard to him. He was appointed physician to Heriot's Hospital (school) in 1730, and died towards the end of 1733. John Innes

On 9th February, 1726, the Town Council resolved to appoint another professor. They had received a petition from Mr. Joseph Gibson, chirurgion in Edinburgh, setting forth the usefulness and necessity of instituting a profession of midwifery. Gibson was recommended by the Incorporation of Surgeons, and the Council therefore resolved to appoint him to be professor of midwifery in the city "with the same privileges and immunities that are known to appertain to a professor of midwifery in any other well-regulated city or place." At the same time they enacted "that no person hereafter should presume to enter on the practice of midwifery within this city and priviledges (except such persons who have actually been bred to chirurgery, such may practise this art, upon passing the trials that warrants their practising of any other branch of chirurgery) till once they present to the magistrates a certificate . . . ; whereupon a licence should be given them, signed by four of the magistrates at least, to practise midwifery." Midwifery

It was also directed that a register of midwives at that time in practice, and of new entrants, should be kept in the Council Chamber, while the contraveners of this regulation were to be prosecuted at the town's expense. It is to be noted that Professor Gibson was at first only city professor of midwifery for the instruction of midwives, although his successors were afterwards enrolled as members of the University Senatus.²

Mr. Gibson had become a member of the Incorporation of Surgeons on 1st June, 1722, and had practised in the town of Leith for some years prior to being appointed professor of midwifery. The practice of this art in Scotland at Joseph
Gibson

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., pp. 215-216.

² Bower: *Op. cit.*, Vol. II., p. 254.

that time was entirely in the hands of female practitioners, and the somewhat opprobrious term of "man-midwife" was generally applied in Britain to physicians who specialised in this branch. This appointment at Edinburgh was the first of its kind in the United Kingdom or in any university, and Professor Gibson appears to have instructed both midwives and medical students till his death, which took place in January, 1739.

Robert
Smith

He was succeeded, on 14th December, 1739, by Mr. Robert Smith, who had become a member of the Surgeons' Incorporation in 1731. The commission received by Robert Smith was more ample than that given to his predecessor, for he was now "professor of midwifery in the city's college, with power to profess and teach the said art in the said college," and he was thus constituted a regular member of the *Senatus Academicus*. He held the office for about 17 years, resigning on 18th February, 1756, when Dr. Thomas Young was appointed to the chair.

The Medical Faculty of Edinburgh University actually began from 1726, and the university was now provided with the power of teaching anatomy and surgery (Professor Monro), chemistry and medicine (Professors Plummer and Innes), institutes of medicine and practice of medicine (Professors St. Clair and Rutherford), botany (Professor George Preston), and midwifery (Professor Gibson).

Degree of
M.D.

The University of Edinburgh began to confer the M.D. degree in 1705, the first graduate having been David Cockburn, A.M., who graduated on 14th May, 1705. Prior to the foundation of the Medical Faculty in the Town's College in 1726, the examination of candidates was remitted to the College of Physicians, who appointed two of their Fellows to give a certificate. This, when presented to the university, was sustained and the degree duly conferred. In this way 21 degrees were conferred up to 1725. From the year 1726 onwards the candidates were examined by the Medical Faculty, and by them recommended to the *Senatus* for degrees.¹

The requirements for the degree of M.D. at Edinburgh, when the Medical Faculty was founded in 1726, were as follows: The student was required to have studied medicine during at least three years at Edinburgh or some other university, and must have attended during this time lectures on anatomy and surgery, chemistry, botany, materia medica and pharmacy, theory and practice of medicine and clinical lectures in the hospital. He was then required to compose a dissertation in Latin upon some medical subject, and to submit it to one of the medical professors two months before the day of graduation. The dissertation was next submitted to the whole Faculty, a question was proposed to the candidate, and he was afterwards examined by two professors as to the proficiency he had made in his medical studies.

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., p. 210; and "List of Graduates in Medicine in the University of Edinburgh from 1705 to 1866."

If his answers were satisfactory, his test was finished. If not, one of the aphorisms of Hippocrates was assigned to him by one of the professors, and a medical question by another. He had to illustrate the former by a commentary, and to answer the latter with proper arguments before the Medical Faculty. Two histories of diseases, accompanied with questions, were also given to him in writing, and he had to give his opinion on them before the Faculty. If he now gave satisfaction, he had to print his thesis and defend it publicly: this, however, being apparently a matter of form. Thereafter, he received the degree of doctor of medicine. All these proceedings were conducted in the Latin tongue.¹



SEAL, EDINBURGH UNIVERSITY

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. II., pp. 216-220.



ALEXANDER WOOD (1725-1807)
(Original in possession of Alexander W. Inglis, Esq.)



ALEXANDER HAMILTON (1739-1802)
(Original, probably by Raeburn, in the possession of Sir E. Hulse, Bart.)

CHAPTER XIV

MEDICINE AT EDINBURGH IN THE LATTER HALF OF THE EIGHTEENTH CENTURY

THE medical faculty in the University of Edinburgh after its foundation in 1726 remained much the same through the next 20 years. Candidates for the degree of M.D., who, up to 1725, had been examined by the Royal College of Physicians and recommended to the Senatus of the Town's College, were, from 1726, examined by the professors of the newly-instituted faculty, and had now to submit a thesis before receiving the degree of M.D. M.D.
examination

In 1738, an important change was made in regard to the subject of botany. Sutherland and the Prestons had been professors of botany only, but in this year the Town Council decided that it would be of advantage to appoint a professor of medicine and botany, and accordingly elected Dr. Charles Alston to this post. He commenced his first course of botany in the subsequent May, and a course of materia medica in November of the same year, and during the 22 years that he was a professor he regularly delivered two courses, one on each of these subjects, in every year. Materia
medica

Thirty years after Alston's appointment the two subjects were divided, when a chair was instituted in materia medica, of which Francis Home was the first incumbent.

Alston had studied medicine and botany under Boerhaave at Leyden, where he had graduated M.D., and he had already been king's botanist with charge of the Holyrood garden for several years. He died in 1760.

About the time that materia medica was introduced by the appointment of Alston, the Town Council, on 14th December, 1739, on the death of Joseph Gibson, the first professor of midwifery to the city, elected Robert Smith as professor of midwifery in the Town's College. The professor of midwifery was thus, from 1739 onwards, a member of the Senatus Academicus. Smith held the professorship for about 17 years, continuing to teach midwives and students, though it is doubtful if he ever gave a full course of lectures.

The decade from 1746 to about 1755 was one of great development in medical teaching, and the number of students increased materially. During the first 20 years of the faculty's existence, students presented themselves annually for graduation in ones and threes, but in 1755, the number of graduates had risen to 17, and students were now coming with considerable frequency from the American and West Indian colonies to get their medical education at Edinburgh. Increase of
students

With regard to the teaching of midwifery, an important development of the medical school took place in 1756, when Dr. Thomas Young was elected professor Teaching of
midwifery

of midwifery. He is generally regarded as the founder of the obstetric school in the University of Edinburgh. His predecessors, Gibson and Smith, had given instruction to midwives and students, and had supervised the examination and licensing of the former, but Dr. Young appears to have been the first who gave a systematic course of lectures upon the subject. He advertised his willingness to deliver patients free of charge, and supply them with proper medicines, so as to have cases for clinical instruction.

Thomas
Young

Dr. Young had joined the Incorporation of Surgeons in 1751, and subsequently graduated M.D. He was elected Deacon of the Incorporation of Surgeons in the same year as he was appointed professor of midwifery.

In this year, also, he took another important step when he applied to the managers of the Royal Infirmary for permission to fit up a ward for lying-in women. This request was granted, and a ward was fitted up in the attic storey of the hospital at Dr. Young's expense for four lying-in women, or as many more as Dr. Young could accommodate, each woman exceeding the number four paying sixpence per day to the Infirmary. This was the origin of the Edinburgh Maternity Hospital.

After Dr. Young had successfully taught the class of midwifery for 24 years, the Town Council, on 15th November, 1780, elected Dr. Alexander Hamilton to be conjunct professor of midwifery along with Dr. Young.

Alexander
Hamilton

Alexander Hamilton (1739-1802), the son of an army surgeon, had been apprenticed to John Straiton, surgeon in Edinburgh, and joined the Incorporation of Surgeons in 1764. At a later date he graduated M.D. of St. Andrews, and joined the College of Physicians in 1789. It was during his period of office as Deacon of the Incorporation of Surgeons that the charter was obtained from George III. on 14th March, 1778, erecting this Incorporation into the Royal College of Surgeons, and conferring upon its members the dignity of Fellows. During his tenure of the chair in the College of Surgeons a strong effort was made to have surgery taught by a separate professor in the university, but this project, being resolutely opposed by Monro (*secundus*), for the time fell to the ground.

Dr. Hamilton, who for some years had apparently been giving instruction in midwifery, was appointed conjunct professor with Dr. Young in 1780, and on Young's death in 1783, became sole professor of this subject in the university. He was assisted in his practice by his son, James Hamilton, who succeeded him on his retirement in 1800.¹ Through the exertions of Professor Alexander Hamilton, the Lying-in Hospital, which had been originally connected with the Infirmary, was established independently in February, 1791, "for the purpose of affording relief to the wives of indigent tradesmen." This institution, besides acting as a useful charity, afforded to students of midwifery opportunities of gaining instruction in the practical application of this subject.²

¹ "Dictionary of National Biography," Vol. XXIV.

² Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. III., p. 360.

Dr. Alexander Hamilton published several important works dealing with his department. In 1775, before he had been appointed to the chair, he published a text-book, "Elements of the Practice of Midwifery," which afterwards went through several editions and was expanded to a text-book on "The Outlines of Midwifery," and he also brought out a successful "Treatise on the Management of Female Complaints."

The famous pamphlet, which appeared in the year 1792, entitled "A Guide for Gentlemen Studying Medicine at the University of Edinburgh," by J. Johnson, of which the authorship was attributed by Professor Gregory first to Alexander and then to James Hamilton, and for which Gregory administered the celebrated beating to the latter, gives an account of the way in which Dr. Alexander Hamilton conducted his course of instruction in midwifery. It runs as follows :—



ALEXANDER HAMILTON
(From Kay's "Portraits")

" Dr. Hamilton divides his course into four parts. In the first, he explains every circumstance in the state of women before delivery with which the practitioner ought to be acquainted ; in the second, he describes the treatment during child-bearing of all the various cases which can occur ; in the third, he describes the management of lying-in women ; and in the fourth part, he exhibits a most complete view of the diseases of children in early infancy. . . . The practice of midwifery is acquired in the lying-in ward

His course in midwifery

of the Royal Infirmary ; but, as it is on a very small scale (containing only six patients at a time), Dr. Hamilton engages to furnish his pupils with private deliveries if they are very anxious to see much practice."¹

The Rebellion of 1745 produced great confusion in the arrangements for medical teaching, as well as in other departments of social activity throughout Scotland. By the winter of 1746-1747, however, affairs had settled down, and various re-arrangements took place in the Medical Faculty. Dr. Innes had in the meantime died, and it became necessary to appoint a successor. The

¹ This pamphlet was withdrawn from circulation, but a copy of it survives in the library of the Royal Medical Society, Edinburgh.

Town Council accordingly elected Dr. Robert Whytt to succeed Dr. Innes as professor of the institutes of medicine, and, at the same time, he was elected professor of the practice of medicine on 26th August, 1747.

Dr. John Rutherford had been lecturing on the practice of medicine for over 20 years, and it is not quite clear why Dr. Whytt now took over these duties. The reason is probably to be found in the fact that Dr. Rutherford began, in the winter session of 1746-1747, to deliver clinical lectures in the Infirmary, and that these occupied a great deal of his time and energy. He still, however, nominally lectured on the practice of physic for another 20 years, when he resigned, and he died in 1799. Andrew St. Clair, before this time, seems to have fallen out of notice as a lecturer, and Andrew Plummer, the fourth of the original professors, devoted himself latterly entirely to chemistry.

Clinical
medicine

John Rutherford, in commencing his clinical lectures, described his plan as follows:—

“ I shall examine every Patient capable of appearing before you, that no circumstance may escape you, and proceed in the following manner: 1st, Give you a history of the disease. 2ndly, Enquire into the Cause. 3rdly, Give you my Opinion how it will terminate. 4thly, lay down the indications of cure yt arise, and if any new Symptoms happen acquaint you them, that you may see how I vary my prescriptions. And 5thly, Point out the different Method of Cure. If at any time you find me deceived in giving my Judgement, you'll be so good as to excuse me, for neither do I pretend to be, nor is the Art of Physic infallible, what you can in Justice expect from me is, some accurate observations and Remarks upon Diseases.”¹

From the earliest days of the Royal Infirmary it had been the practice for students to attend the physicians and surgeons at their visits, and to receive instruction from them on the cases. For this they paid a fee of one guinea in the case of apprentices, and two guineas in the case of other students, yearly. The delivery of clinical lectures was at first confined to the professors of medicine. As early as 1749 the Governors of the Infirmary declared:—

“ A flourishing School of Medicine being already established in Edinburgh, the Governors of the Infirmary resolved to promote it as much as they could, and on this account allowed all Students of Medicine, on paying a very small Gratuity, which is part of the annual Revenue of the Infirmary, to attend this Hospital, to see the practice of the Physicians and Surgeons. They likewise granted Liberty to the Professors of Medicine to give clinical Lectures on the Cases of the Patients, and they are making a collection of medical books, and of chirurgical Instruments for public use.”²

Special accommodation was provided for the “ clinical patients,” and, in 1756, a definite course of clinical medicine was arranged, Drs. Monro, William Cullen,

¹ MS. Notes of Rutherford's Clinical Lectures in the Royal College of Physicians' Library, Edinburgh, p. 7.

² “History and Statutes of the Royal Infirmary of Edinburgh,” Edinburgh, 1749.

Whytt and Rutherford lecturing in rotation during a period of five months. In 1790, the delivery of clinical lectures was extended to include lectures by the Physician-in-Ordinary in the person of Dr. Henry Cullen.¹

The delivery of lectures on clinical surgery followed much later than the arrangements for clinical medicine. It appears that, in 1772, James Rae had for several years been giving "practical discourses on cases of importance in the Royal Infirmary,"² and, in 1769, the Governors of the Infirmary agreed to a memorial from the surgeons that clinical lectures in surgery should be regularly instituted similar to those given in clinical medicine, the treasurer being instructed "to find out a proper place in the Hospital for the above purpose."

Clinical
surgery

Dr. Robert Whytt (1714-1766), who was elected professor both of the theory and practice of medicine in 1747, had received his early education at Kirkcaldy, and later went to St. Andrews University, where he graduated in arts in 1730. The next four years he spent in Edinburgh, studying medicine at the school which Monro (*primus*), St. Clair, Rutherford, Innes and Plummer had done much to develop in the previous decade. In 1736, he graduated M.D. at Rheims, and, returning to Scotland next year, received the degree of M.D. also from St. Andrews University. In 1737, he joined the Edinburgh College of Physicians as a licentiate, started medical practice in Edinburgh, and became a Fellow of the College in the following year.

Robert
Whytt

About the time that Whytt commenced to practise, great public interest was manifested in the search for substances which would dissolve stones in the bladder. This was probably due to several well-known persons having suffered from calculus about the period, but the condition seems in any case to have been commoner then than now. Whytt had taken a great deal of interest in this subject, and carried out an elaborate series of experiments in the Royal Infirmary of Edinburgh with lime-water made from calcined egg-shells, cockle-shells, oyster-shells, etc., which he found had a considerable power in disintegrating calculi. Not only had he tried the effects of the solvent *in vitro*, but he had carried out courses of injections into the bladders of various patients in the Infirmary who were suffering from vesical calculus. His "Essay on the Virtues of Lime-water and Soap in the Cure of the Stone" was first published in 1743. The treatment upon which he finally settled was to administer daily, by the mouth, an ounce of alicant soap and three pints or more of lime-water.

Researches
on stone

Whytt was one of the first doctors in Scotland to devote himself to medical research in the modern connotation of this term, and he busied himself, for some years after his appointment as professor in the University of Edinburgh, chiefly with physiological researches. To this period belong "An Essay on the Vital and other Involuntary Motions of Animals," first published in 1751; and two "Physiological Essays," published in 1755. Of these, the one was "An Inquiry into the Causes which promote the Circulation of the Fluids in the very small

¹ Minutes of the Managers of Edinburgh Royal Infirmary, of dates cited.

² Minutes of Royal College of Surgeons of Edinburgh, 27th August, 1772.

Vessels of Animals." The other was entitled "Observations on the Sensibility and Irritability of the Parts of Men and other Animals: occasioned by M. de Haller's late Treatise on these Subjects."

On reflexes

The "Essay on the Vital and other Involuntary Motions of Animals" contains a record of numerous experiments dealing especially with the reflex movements. Whytt was the first to localise a reflex by showing that lasting dilatation of the pupil might be due to compression of the optic thalamus.¹ He also showed that the brain is unnecessary for reflex action, and that a portion of the cord suffices for this, for in a brainless frog the reflexes of the upper and lower limbs are in different parts of the cord.² These were the first attempts, I believe, since the time of Galen, to localise the seat of reflex acts. They preceded by nearly a century the important memoir presented to the Royal Society by Marshall Hall (1833) on "The Reflex Function of the Medulla Oblongata and Medulla Spinalis."

One of the Essays published in 1755, "Observations on the Sensibility and Irritability of the Parts of Men and other Animals," brought Whytt into conflict with Albrecht von Haller, and so gained for him prominent notice in Germany, Switzerland and France. The whole dispute, both on the side of Haller and on that of Whytt, was of a dialectic character, and tended rather to involve the names of things than actual facts of nature. It must be remembered, too, that the dispute took place between 60 and 70 years before the experiments of Bell (1811) and Magendie (1822) showed the separate existence of motor and sensory nerve paths. Whytt advanced some telling arguments in support of his contention that all muscular action was governed by nervous control.

On nervous disease

Of much more permanent interest, however, is Whytt's "Observations on the Nature, Causes and Cure of those Disorders which are commonly called Nervous, Hypochondriac, or Hysteric." This was published in 1764. It shows great clinical acumen and is well worth reading still, particularly for the vivid accounts that Whytt gives of a great number of cases of hysteria and similar conditions. He refers to "a particular sympathy between the nerves distributed to the teguments of the abdomen and those of the intestines."³ He also mentions the pain felt in the groins and down the thighs in scirrhus of the uterus.

On meningitis

Whytt's chief claim to lasting remembrance, however, lies in the fact that he was the first to give a clear description of tuberculous meningitis, or, as he called it, "Observations on the Dropsy in the Brain." This is a short treatise of 23 quarto pages, included in the collected works published after his death. The disease is still described according to the three stages into which Whytt divided its symptoms, and even at the present day there is little to add to his description from the clinical aspect.

Monro (*secundus*), who acted as professor of anatomy at Edinburgh from 1754 to 1798, and whose name is familiar to medical students in connection with

¹ "Works of Robert Whytt, M.D.," published by his son, 1768, p. 71.

² *Op. cit.*, p. 203.

³ *Op. cit.*, p. 542.

the foramen connecting the lateral and third ventricles of the brain, has an interesting point of contact with Whytt in this matter. The foramen was first observed greatly dilated in a case of hydrocephalus which Monro and Whytt saw in consultation in the year 1764.¹

To continue the facts of Whytt's life, in 1752, he was elected a Fellow of the Royal Society of London as the result of the reputation gained by his "Essay on the Vital and other Involuntary Motions of Animals." Several short communications were addressed to this society. In 1761, he was made Physician to the King in Scotland, and, in 1763, he was elected President of the Royal College of Physicians at Edinburgh. He had many friends and correspondents in various parts of the world, and in particular he maintained a close friendship with Sir John Pringle, who had been a fellow-student. He died in 1766,² when he was succeeded in the chair of practice of medicine by John Gregory, and in that of institutes of medicine by William Cullen.

John Gregory (1725-1773) came of a celebrated Aberdonian family and had been mediciner at King's College, Aberdeen. He had received his medical education in the latter town and at Leyden, and had for a time practised in Aberdeen and in London. He repaired to Edinburgh early in 1765, and having already important connections in the University of Edinburgh, where his grandfather and two cousins had been professors of mathematics, he soon obtained an extensive practice. On 12th February, 1766, Dr. John Rutherford, who had been nominal professor of medicine, resigned, and on the same date Dr. John Gregory was elected his successor. Dr. Robert Whytt, professor of the institutes of medicine, had been the actual professor of practice of medicine since 1747, but was now in failing health and died on 15th April, 1766.

John
Gregory

During the 20 years through which Robert Whytt had been professor both of practice of medicine (in place of John Rutherford) and of institutes of medicine, the plan of having the two subjects taught by one individual appears to have been considered highly successful. Accordingly, we find Dr. William Cullen, who was now professor of institutes of medicine, on 12th April, 1769, petitioning the Town Council, with the consent of Dr. John Gregory and the approbation of the other members of the Medical Faculty, to appoint him and Dr. Gregory to be joint professors of medicine, so that each of them should teach in alternate sessions the theory and the practice of medicine. It was proposed that this arrangement should subsist during the incumbencies of Dr. Gregory and Dr. Cullen.

The arrangement was approved by the Town Council and came into effect, but this 18th century experiment of bringing physiology and medicine into close contact with one another was of too short duration to enable any conclusion to be drawn with regard to its success, for John Gregory died suddenly on

¹ Alexander Monro: "Observations on the Nervous System," 1783, Plate III, Fig. 4.

² See further, Comrie: "An 18th Century Neurologist," *Edinburgh Medical Journal*, November, 1925.



WILLIAM CULLEN (1710-1790)
(Original picture by Cochrane, in Hunterian Museum, Glasgow)



ROBERT WHYTT (1714-1766)
(Original by Bellucci, preserved at Mount Melville, Fifeshire)

roth February, 1773, before the plan had been four years in operation. His career in Aberdeen and his works are noticed in Chapter XVI.

When John Gregory died, William Cullen became sole professor of practice of medicine under the arrangement previously made between the Town Council, Gregory and himself. It now devolved upon the Town Council to appoint a professor of institutes of medicine. On 5th May, 1773, Dr. Alexander Monro Drummond, who had graduated M.D. at Edinburgh in 1770, and had afterwards gone abroad and settled at Naples, was appointed to this chair.

Alexander
Monro
Drummond

He had apparently made himself *persona grata* to the King of Naples, and on the intercession of the latter, he decided to remain in Italy, and seems, at an early stage, to have declined the proffered post in Edinburgh. As he had not arrived here by the beginning of the winter session, Dr. Francis Home was appointed, in October, 1773, to teach the class of institutes of medicine, and he appears to have done this for two winter sessions. It is not clear why the post was not regularly filled, because at the beginning of the winter session, 1755, Dr. Andrew Duncan (*senior*) was nominated to perform the duty of teaching the class, and did so for another two sessions.

Finally, on 19th June, 1778, Dr. James Gregory, son of Dr. John Gregory, was elected professor of the institutes of medicine. Bower is of opinion that the delay of five years in obtaining a professor for this chair was due to the desire of the Town Council to have Dr. James Gregory for professor. When his father died, he was still a medical student, graduating M.D. in 1774, with a thesis "De Morbis Cœli Mutatione Medendis," and afterwards proceeding to Leyden to study under the celebrated Gaubius. At all events, when he was appointed to the chair of institutes of medicine, his was the only name considered.¹

James
Gregory

The subject of chemistry continued to be taught by Plummer till 1755, when William Cullen came from Glasgow to be his colleague and later his successor. Cullen succeeded Whytt as professor of institutes of medicine in 1766, and, at the same time, John Gregory, who had been mediciner at King's College in Aberdeen, succeeded Whytt as professor of practice of medicine. The developing medical school at Edinburgh thus had, at an early stage, important connections with Glasgow and Aberdeen.

William Cullen (1710-1790), was born at Hamilton, his father being factor to the Duke of Hamilton and proprietor of Saughs, a small estate near Bothwell. William Cullen was the second of a family of nine, and on the death of his father and elder brother, at an early age, Cullen assumed the responsibility for the education of the younger members of the family. His preliminary education took place at the Grammar School of Hamilton, and at the age of 17 he went to the University of Glasgow to study those subjects which were then considered part of an education in polite letters.

William
Cullen

His
education

¹ Bower: "History of the University of Edinburgh," Edinburgh, 1817, Vol. III., p. 199.

At this time, although there were several medical professors in that university, they were professors in title only and delivered no lectures, so that after Cullen had been for two years apprentice to Mr. John Paisley, a surgeon of Glasgow, he went, in 1729, to London to further his education and prospects. Obtaining a position as ship's surgeon, he sailed from London to the West Indies on a two years' voyage, and, on his return, spent a few months with Mr. Murray, an apothecary in Henrietta Street.

Towards the end of 1731, he returned to Scotland, set up in practice for some months at the village of Shotts, and afterwards commenced a practice at Rothbury in Northumberland. This somewhat varied experience is a good example of the type of medical education which was in vogue in the early part of the 18th century.

Cullen, however, aspiring to a status above the average in his profession, determined to take the degree of M.D., and betook himself in the year 1734 to Edinburgh, where he attended the medical school in the sessions 1734-1735 and 1735-1736. This was some eight years after the foundation of the Medical Faculty in the university. During his stay in Edinburgh he joined himself, in the year 1735, to a private debating club of students, from which later developed the Royal Medical Society.

Practice at
Hamilton

Returning again to Hamilton in 1736, Cullen became medical attendant to the Duke and Duchess of Hamilton, a position which he mentions that he held at a financial loss to himself, although that aristocratic connection proved of great value to his subsequent advancement. Very shortly after settling in Hamilton, he took as apprentice a youth from the neighbouring village of Longcalderwood, who afterwards became the celebrated physician William Hunter, and with whom Cullen maintained friendly intercourse to the end of Hunter's life.

At Glasgow

In the year 1740, Cullen took the M.D. degree at Glasgow University with the intention of limiting his practice to that of a physician, and in November, 1741, he married. In 1744, he removed his practice to Glasgow, and two years later he formed a teaching connection with this university by obtaining permission



MORTAR OF WILLIAM CULLEN
(Original in the Royal College of Physicians, Edinburgh)

from Dr. Johnstoun, then titular professor of medicine, who, however, had never delivered lectures, to give a six months' course of lectures on practice of medicine. Lectures on
medicine

Next year he joined Mr. Carrick, a practitioner of the city, in giving a course of lectures on chemistry, and in the following year added *materia medica* and botany. Carrick having died in 1750, Cullen continued to give lectures on medicine and chemistry for the rest of his stay in Glasgow. The interest which he succeeded in creating for the subject of chemistry is shown by the fact that the University of Glasgow, in 1747, sanctioned the spending of £52 in order to fit up a chemical laboratory. Later the amount was raised to £136, and a grant of £20 annually was made for the maintenance of the laboratory. The apparatus must have been of a somewhat elaborate type, because considerable difficulty was experienced in procuring part of it, even in London. In this chemical class Cullen had another pupil, Joseph Black, who subsequently attained great fame as a chemist. Black remained his pupil for six years in Glasgow, went to Edinburgh in 1751, where Dr. Plummer was then lecturer in chemistry, and three years later graduated M.D. On
chemistry

In 1751, Cullen succeeded Dr. Johnstoun as professor of medicine in the University of Glasgow, and continued to give lectures upon chemistry and medicine for four years until 1755, when he secured an appointment as joint professor of chemistry with Plummer in the University of Edinburgh. Plummer died of apoplexy some months later, and under Cullen the class of chemistry prospered greatly, rising from 17 students in the first session to 59 in the second, and gradually developing into a class of 145. Appoint-
ments as
professor

Teaching chemistry did not, however, satisfy Cullen's medical ambitions, and, in 1757, he undertook to deliver clinical lectures in the Royal Infirmary of Edinburgh, a new type of lecture upon the cases of patients, which had been commenced by Dr. Rutherford ten years earlier on the model of lectures that he had heard given in the hospital at Leyden. In 1766, Cullen became professor of institutes or theory of medicine (physiology), and, in 1769, an arrangement was effected with Dr. John Gregory by which Gregory and Cullen gave alternate courses in practice of medicine. Cullen became sole professor of this subject when Gregory retired in 1773, and by this time he had also developed a large, lucrative and aristocratic consulting practice in Edinburgh.

It is interesting to note that Cullen did not succeed to the professorship of medicine till he was 63 years old, an age at which many men of the present day are preparing to retire. Throughout his professional life Cullen lived and saw his patients in a small house in Mint Close or South Gray's Close, which, despite its confined character, was one of the principal residential districts of the day. In 1778, however, the cares of practice were decreasing, and he purchased Ormiston Hill House, near Kirknewton, some nine miles west of Edinburgh, where he spent much time in laying out a garden and sylvan retreat. Here, after resigning his chair in 1789, he died in 1790.

Research

Cullen's reputation in his own day, and his subsequent fame, rest almost entirely upon his skill as a teacher and sagacity as a consultant. With regard to research, as the term is understood at the present day, his only work was a short pamphlet recording experiments "On the Cold produced by Evaporating Fluids." He took an active part in preparing the new edition of the "Edinburgh Pharmacopœia," issued in 1774, and in obtaining a new hall for the College of Physicians. In 1783, his persevering endeavours secured the incorporation of the Philosophical Society as the Royal Society of Edinburgh.

His works

His works were all text-books elucidating various departments of medicine, and included "Lectures on Materia Medica," which was at first pirated and published without his consent in 1771, but subsequently issued as a "Treatise on Materia Medica" by him in 1789; and "First Lines on the Practice of Physic," published in 1776-1784, and in numerous subsequent English, French and German editions. But the work which brought him the greatest measure of fame was his "Nosology," published in 1769, a small pamphlet which aimed at a rigid classification of diseases by their symptoms on the same arbitrary principle as Linnæus had adopted for classifying plants. It arranges all diseases by classes, orders, genera and species and, regarding them as fixed entities, makes in a sense a system of the whole of medicine. Although up to a certain point logical, such a system is unnatural, and while Cullen's classification greatly simplified medicine and established his reputation during his lifetime, it fell into complete disuse half a century after his death.¹

His great reputation

The influence that he exerted on the public mind, and the great attraction that he exercised in bringing students from a distance, were due to his clearness of perception, sound reasoning and judgment, more than to any originality. As a lecturer, he had powers of interesting his students and inspiring them with enthusiasm. One of his pupils highly commended his excellent arrangement, his memory of facts, and the ease, variety, vivacity and force of his lectures. He lived at a time when medical practice was driven hither and thither by conflicting theories and systems, which his clear mind and power of expression enabled him to codify and set in their proper places. In his day, theories as to the nature of life and vital processes were considered all-important, a matter which is difficult to understand in the present age, when the human mind accepts the mystery of life as a fact, and inquires only into the ways in which it is manifested.

Cullen adopted a standpoint somewhere between the views of his immediate predecessors, Stahl and Boerhaave. Stahl had explained all vital phenomena by reference to the activity of a "sentient soul," while Boerhaave, the great upholder of the iatro-mechanical school of thought, was purely materialistic in regard to the action of the nervous system. Cullen adhered to the views of

¹ See Thomson: "Life, Lectures and Writings of William Cullen, M.D." Edinburgh, 1859.

his predecessor in the chair of medicine, Robert Whytt, who maintained a "sympathetic" action of all parts of the body connected by nerves and vessels; but he also supported the views of Haller, who postulated a *vis insita* in the individual tissues which rendered them excitable for independent action.



JOHN BROWN (1736-1788)

Edinburgh students, but secured him a great following among scientific men all over Europe. He and Cullen engaged in much polemic writing on the subject, but Brown ultimately died from a practical application of his theories to his own person, by alternate recourse to stimulants and sedatives, and the dispute, so far as Edinburgh was concerned, ended.

Another link with the Glasgow Medical School is formed by Joseph Black (1728-1799), who may be described as the first of the scientific chemists as

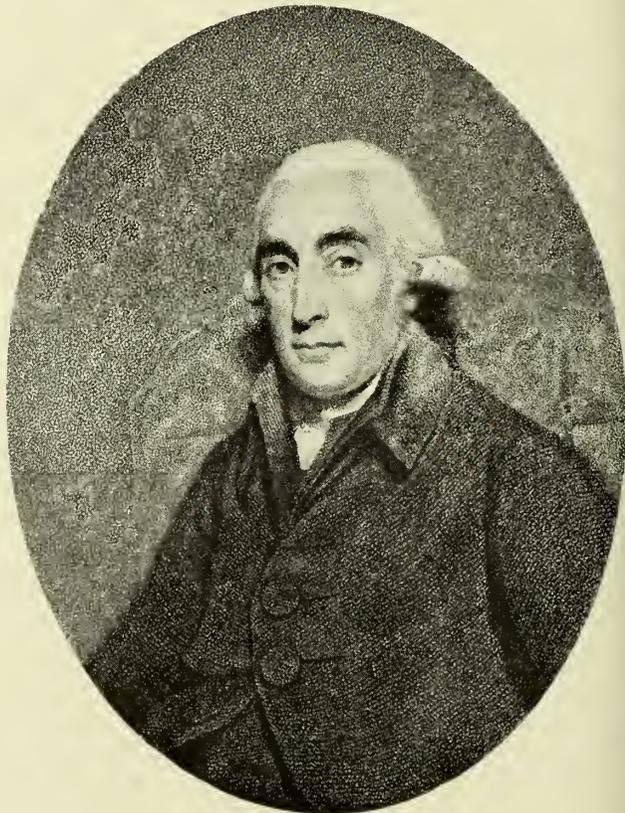
John Brown
 Out of the question of "excitability" arose a great deal of trouble, about the year 1778, between Cullen and a rival lecturer, Dr. John Brown. Brown revived the ancient methodism of Asklepiades and promulgated a simple idea with regard to the nature of vital processes and disease, which is known as the "Brunonian Theory," and which attributed disease processes to a state of too great or too little excitability of the tissues.

Brunonian theory
 All therapeutic measures, therefore, resolved themselves into stimulation if the excitability was lessened, and soothing remedies if the excitability was too great. Brown's system, which was both easy to understand and required very little knowledge of medicine, not only appealed strongly to the

Joseph Black

distinguished from medical chemists, and who succeeded Cullen as professor of chemistry at Edinburgh in 1766. He was born at Bordeaux, of Scottish parents, and, in 1746, commenced the study of medicine at Glasgow, where he had William Cullen for his teacher in chemistry. A close friendship sprang up between the two, which continued when Black went to Edinburgh in 1751 to continue his medical studies.

During 1752 - 1753 Black busied himself in research for a solvent of urinary calculi. In the course of his experiments he discovered that the difference between calcareous earth (limestone) and quicklime was produced by the expulsion of a "fixed air," and that by the action of slaked lime upon the mild alkalis these were in turn rendered caustic by the transference of their "fixed air" to the slaked lime, whereby the latter again became mild. By quantitative experiments he found further that instead of gaining something from the fire (phlogiston), as was then the general view, the limestone had sustained a substantial loss owing to the escape of a gas, to which, therefore, he gave the name of "fixed air."



JOSEPH BLACK (1728-1799)

Discovery
of carbon
dioxide

This discovery of carbon dioxide was embodied in his thesis, submitted in 1754 for the degree of M.D., entitled "De Humore Acido a Cibis Orto, et Magnesia Alba." He seems to have had some modest doubts as to whether this discovery was sufficient for an M.D. thesis. A fuller account in English of his experiments was published next year under the title "Experiments upon Magnesia Alba, Quicklime and some other Alcaline Substances."

Latent heat

Black suggested to his friend Professor Cullen the investigation of the effects in producing cold by evaporating fluids, upon which Cullen subsequently published a short treatise. In the same connection Black, in 1762, discovered the principle

of latent heat, which was described in a paper to the Philosophical Club of Glasgow, but was not published till it appeared in Black's "Lectures," edited by Robison, in 1803. The practical importance of Black's discovery was at once recognised by James Watt, through whose genius latent heat was transformed into useful mechanical work in the invention of the steam engine.

Black and Cullen were two active early members of the Royal Society of Edinburgh, which was re-organised from the Philosophical Society with a Royal Charter in 1783. In 1757, Black was appointed professor of chemistry and medicine at Glasgow on the death of Professor Hamilton. Professor of chemistry

In 1766, when Cullen was transferred from the chair of chemistry at Edinburgh to that of institutes of medicine, he was succeeded by his friend, Joseph Black. Black had engaged, during his time at Glasgow, in busy practice as a physician, but, on coming to Edinburgh, he devoted himself to research, mainly on the subject of latent heat, and to teaching. In 1795, Thomas Charles Hope was appointed joint professor of chemistry with him, and Black died in 1799. After his death, his lectures, expanded from his own notes, were published by his friend and colleague, Professor John Robison, in 1803, as "Lectures on the Elements of Chemistry, delivered in the University of Edinburgh."

A younger contemporary of Joseph Black was Daniel Rutherford (1749-1819), the son of Dr. John Rutherford. In 1772, he submitted for the degree of M.D. a thesis entitled "De Aere Fixo Dicto, aut Mephitico." In this he pointed out that after Black's "fixed air" had been removed from respired air by caustic lye, the air still extinguished both flame and life no less than before, although it produced no precipitate with lime-water. This was the discovery of nitrogen gas. Although Daniel Rutherford's inclinations lay towards chemistry, he was later appointed professor of medicine and botany in 1786. Daniel Rutherford
Discovery of nitrogen

The subject of materia medica was separated from that of botany in 1768, when Francis Home (1719-1813), was appointed to fill the newly-instituted chair of materia medica. Francis Home had been apprenticed to an Edinburgh practitioner named Rattray, and was an early member of the Royal Medical Society. He had served with distinction in the British army during the war of the Austrian Succession, and, while in Flanders with the army, he seized the opportunity to attend the lectures of Boerhaave at Leyden. Returning to Edinburgh, he graduated M.D. in 1750, and, in 1752, joined the Royal College of Physicians. Francis Home

It is interesting to note that while he had been surgeon to Colonel Cope's dragoons in Flanders, he had drawn up, at the desire of the commanding officer, a series of regimental orders for the prevention of fever, and among these was the instruction "the dragoons shall drink no water without it be first boiled"—perhaps the earliest order issued to this effect. Boiling of drinking water

Several of the most important medical observations made in the 18th century were due to him. His M.D. thesis of 1750 had dealt with remittent fever. In 1751, he published a small work dealing with the virtues of Duns spa, which Researches



FRANCIS HOME (1719-1813)
(Original portrait in the possession of Fleet-Surgeon Home, R.N.)



DANIEL RUTHERFORD (1749-1819)

believed to be anthelmintic because the earth-worm died sooner in this water than in ordinary spring water. A record of experiments on bleaching, published in 1756, was awarded a payment of £100 by the Board of Trustees for the Improvement of Fisheries and Manufactures, and was considered to have been of great benefit to this industry. In the same year a treatise on the "Principles of Agriculture" was awarded a gold medal by the Edinburgh Society for the Improvement of Arts and Manufactures, and in it he endeavoured to introduce chemistry to the assistance of agriculture. In this book he is believed to have been the first to show that plants took up nutrient matter from the air.

Measles was a disease very prevalent in Edinburgh about 1755, with a mortality rate of about 10 per cent., and in a paper, published in this year, he suggests a method of inoculation for the prevention of the disease. His "Principia

Croup

Medicinæ" appeared in 1758, and in it he described a malignant form of angina, chiefly affecting children, very contagious, sometimes attacking a whole family and causing great weakness. In 1765, he dealt further with this subject in a short work on "Croup," which is said to have aroused the attention of the whole medical world. This was, in fact, the first description of the disease now known as diphtheria.

Two years after he had been appointed professor of materia medica in the university, he published his "Methodus Materiæ Medicæ," a classified syllabus of drugs for the use of students, which went through several editions. His last book, entitled "Clinical Experiments, Histories and Dissections," was published in 1780, and in it he mentions his discovery that the sugar of diabetic urine could be



FRANCIS HOME (1719-1813)
(From Kay's "Portraits")

fermented with yeast. He retired in 1798, and was succeeded in the chair of materia medica by his son, James Home.¹

The comprehensive course of lectures on anatomy begun by Professor Monro in 1720 was continued every winter for nearly 40 years, a period during which the numbers of students attracted to Edinburgh yearly increased.

Anatomy

His son, Alexander Monro (*secundus*) (1733-1817), was educated with a view to succeeding his father in the chair of anatomy, and at the age

Alexander Monro (*sec.*)

¹ Home : *Proceedings of the Royal Society of Medicine*, Vol. XXI., 1927-1928, p. 1013.

of 21 was elected conjoint professor, taking full charge of the department at the age of 25, in 1758, when the first Monro restricted himself to teaching clinical medicine. Placed in easy circumstances from the outset, and provided with a class which came to him independently of any attractions he had to offer, Monro (*secundus*) might well have failed to reach the success as a teacher and as a citizen to which the first Monro had by his efforts attained. Yet the second Monro showed himself the greater man, both as a teacher and investigator, and, among more brilliant colleagues than those with whom his father had had to compete, he maintained an easy equality and was the acknowledged head of the developing medical school.



ALEXANDER MONRO (*secundus*)
(1733-1817)
(From Kay's "Portraits")

After studying medicine at Edinburgh, he graduated M.D. in 1755, and afterwards proceeded for some time to Berlin, where he worked under the celebrated Meckel, and to Leyden, returning to Edinburgh in 1758, and being elected a Fellow of the College of Physicians the following year.

It is useful, as showing the progress of the Edinburgh Medical School, to consider the number of students attending the anatomy class during the decennial periods throughout the regime of the first two Monros.¹

Increasing number of students

In 1720	57	Average 1760-1770	194
„ 1730	83	„ 1770-1780	287
„ 1740	130	„ 1780-1790	342
„ 1750	158	After 1800	over 400

A short account of the lectures delivered by Monro (*secundus*) is given in the Memoir of his son. Monro was accustomed, after very careful preparation, to lecture in an extempore manner from headings, but a manuscript copy in excellent handwriting, taken down by one of his students, is preserved in the Library of the Edinburgh College of Physicians, and another in the Museum of the College of Surgeons.

Monro's works

With regard to the contributions made by Monro (*secundus*) to the increase of anatomical knowledge, it is a striking fact that none of the great works on which his reputation chiefly rests was published till after he was 50 years

¹ Struthers: "The Edinburgh Anatomical School," Edinburgh, 1867, p. 23.

of age. These were "Observations on the Structure and Functions of the Nervous System" (1783); "The Structure and Physiology of Fishes explained, and compared with those of Man and other Animals" (1785); "Description of the Bursæ Mucosæ of the Human Body" (1788); and "Treatise on the Brain, the Eye and the Ear" (1797).



BURSÆ MUCOSÆ OF THE ARM

Drawn by A. Fyfe

(Table I. from "Bursæ Mucosæ of the Human Body," by Alexander Monro)

One of Monro's earliest fields of inquiry was on the function of the lymphatic vessels, and his dispute with William Hunter for priority in the elucidation of their nature was one of the celebrated medical controversies of the 18th century. Up to 1755, nobody had supposed that the lymphatic vessels were more than a class of very small veins originating like the "red veins" from the arteries. Monro (*secundus*), while in Berlin in 1757, published a Latin thesis, "De Venis Lymphaticis Valvulosis," in which he deals with their origin from spaces in the connective tissues. Hunter had mentioned the same thing in his lectures, and suggested that the lymphatics are the absorbents of the body, and Monro charged Hunter with having adopted the idea from him.

Discovery of lymphatics

He supported his contention by a letter from Joseph Black, dated 24th March, 1758, in which Black states that Monro had shown him a paper in 1755 in which he maintained that the lymphatics "are a distinct system of vessels, having no immediate connection with the arteries and veins, but arising, in small branches, from all the cavities and cells in the body, into which fluids are thrown; and that their use is to absorb the whole, or the thinner parts, of these fluids, and restore them to the mass of circulating humours."¹ Monro's main method of proof had been by injecting the arteries in such a way as to rupture them, when he found that the injection fluid passed from the alveolar spaces into the neighbouring lymphatics, and, on the balance of probability, the original discovery that the lymphatics form an independent absorbent system is really his.

A similar controversy was later raised with Hewson, who had been a pupil of Monro in Edinburgh and of Hunter in London, and who published, in 1774, his celebrated "Description of the Lymphatic System in the Human Subject and

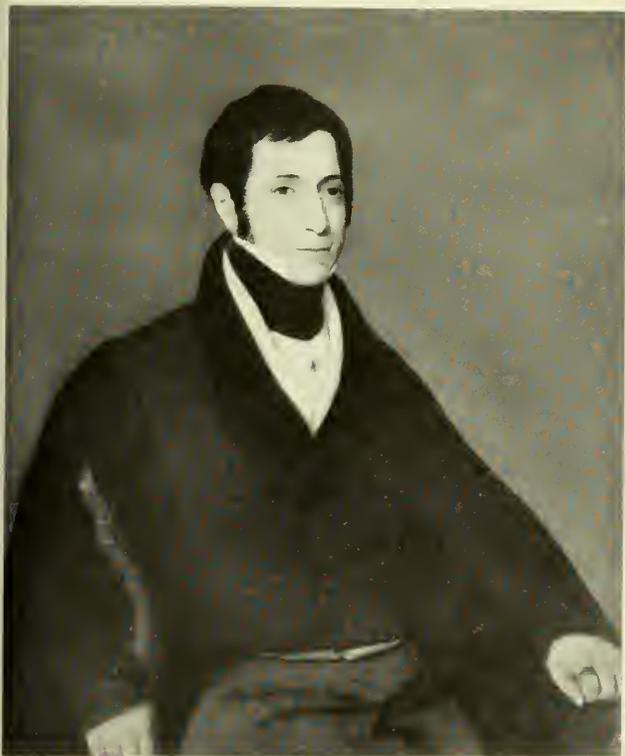
¹ Monro: "Observations, Anatomical and Physiological," 1758, p. 27.

The first observation of this foramen was made on a case of tuberculous meningitis seen in consultation with Robert Whytt, which also furnished the latter with part of the material for his original description of this disease.¹

"The Structure and Physiology of Fishes" (1785) was the first important work on comparative anatomy in Edinburgh, and founded in Scotland a taste

for that branch of science which had been recently introduced and elaborated by the Hunters and their pupils in London. Monro's "Description of the Bursæ Mucosæ of the Human Body" (1788) was of a more practical type, and of great importance in relation to surgery.

Bursæ
Mucosæ



JOHN BELL (1763-1820)

(Original in The Wellcome Historical Medical Museum, London)

His son, Alexander Monro (*tertius*) was conjoined with him in the professorship on 14th November, 1798, and Monro (*secundus*) then gave up lecturing, and died in 1817, after 63 years' tenure of the anatomical chair.

We must now consider the extra-academical teachers of anatomy. The teaching of this subject began with the Guild of the Surgeons and Barbers long before

the Town's College was founded. The capable brain of Dr. Archibald Pitcairne, about 1680, conceived the idea of founding a medical school in Edinburgh; he was one of the three professors of medicine appointed in 1685 to the Town's College or University as it then began to be called; and in the combined anatomical demonstrations of the Surgeons' Incorporation after his return from the Leyden professorship, he was, in 1702 and 1704, as we have seen, the guiding spirit.

¹ "Works of Robert Whytt," 1768, p. 728.

John Bell

During the first 60 years of the Monro regime, the university had a monopoly of anatomical teaching, but it is a significant fact that though the first two Monros lectured on surgery, neither was an operating surgeon, and the second was a consulting physician with large practice. Anatomy in their hands, though brilliantly taught, naturally tended to become a formal systematic subject, and in 1786, John Bell (1763-1820), returning to Edinburgh and becoming a Fellow of the College of Surgeons, saw a great chance. In his "Letters on the Education of a Surgeon," published in 1810, he says :

"In Dr. Monro's class, unless there be a fortunate succession of bloody murders, not three subjects are dissected in the year. On the remains of a subject fished up from the bottom of a tub of spirits, are demonstrated those delicate nerves which are to be avoided or divided in our operations; and these are demonstrated once at the distance of 100 feet!—nerves and arteries which the surgeon has to dissect, at the peril of his patient's life."¹

John Bell, therefore, began to lecture, and so successful was he in attracting students that, in 1790, he built an anatomical school adjoining on the east the Hall of the Surgeons in what was later called Surgeons' Square. He was not only an expert anatomist, but a good classical scholar, a skilful draughtsman and etcher, a ready speaker and a polished writer. It is no exaggeration to say that he founded the subject of Surgical Anatomy. The works and atlases of the great anatomists in the 18th century, *e.g.*, Cheselden, Albinus, Haller, Winslow, Scarpa, Soemmering, even the Hunters, all treat the subject from the purely structural point of view.

By these men the various systems and organs are correctly described and often beautifully figured, but the engravings of John Bell, and later of his brother Charles, have a teleological significance, their aim being not so much correctness, as utility to the operating surgeon. This feature is readily seen in John Bell's "Engravings of the Bones, Muscles and Joints," drawn and engraved by himself (1794).

Attacked by
Gregory

Bell was essentially a surgeon, and his only other anatomical work was the "Anatomy of the Human Body," published, Vol. I., 1793; Vol. II., 1797; Vol. III., 1802. He taught anatomy for 13 years and gave it up under peculiar circumstances. So successful had his anatomical classes proved, that a combination, led by Dr. James Gregory, professor of the practice of medicine in the university, was formed against him, and he was pursued in a manner which for audacity, if not for bitterness, would be wellnigh impossible at the present day.

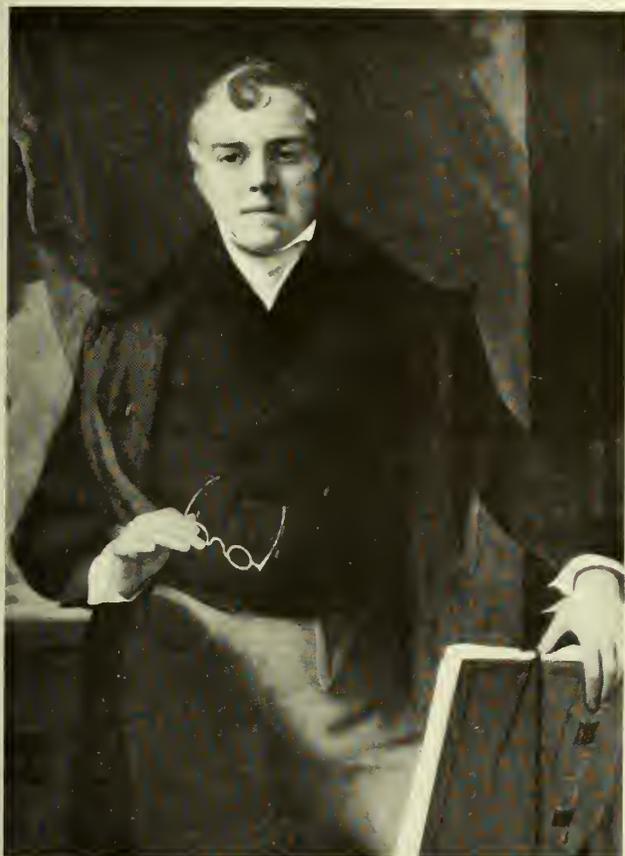
The attack opened with a pamphlet addressed to students warning them against attending Mr. Bell's lectures. It was followed by a "Review of the Writings of John Bell, Surgeon in Edinburgh, by Jonathan Dawplucker" (Professor Gregory). This malignant attack was, as Bell states, "Stuck up like a Play-Bill, in a most conspicuous and unusual manner, on every corner of the city; on

¹ John Bell: "Letters on the Education of a Surgeon," Edinburgh, 1810 p. 579.

the door of my lecture-room, on the gates of the College, where my pupils could not but pass, and on the gates of the Infirmary, where I went to perform my operations."

As an example of the personal abuse to which Gregory descended may be cited: "Any man, if himself or his family were sick, should as soon think of calling in a mad dog, as Mr. John Bell." Bell, at a later period, replied to these attacks

Excluded from the infirmary



SIR CHARLES BELL (1774-1842)
(Original in National Portrait Gallery)

pungently and effectively, in a voluminous collection of "Letters."¹ But Gregory's party having secured his exclusion from the hospital, there was nothing to be gained by Bell from further teaching. He therefore ceased to lecture in 1799, confining himself to surgical practice, in which he was for about 20 years the leading operator and consultant throughout Scotland.

Charles Bell (1774-1842) was younger than his brother John by eleven years, and was trained by him in anatomy and surgery. In this there is a sort of comparison with the brothers William and John Hunter, half a century earlier. Charles Bell began to assist in the anatomical class while still comparatively a boy, and, like John Bell, he had a genius

Charles Bell

for anatomical delineation. The same teleological tendency is seen in his drawings, directed in his earlier works, like that of his brother, towards surgery. These earlier works were a "System of Dissections" (published 1792-1803), and "Engravings of the Arteries, of the Nerves, and of the Brain" (published 1801 and 1802), while his "Anatomy of Expression," though not published till 1806 in London, was mainly composed in Edinburgh.

Early works

¹ John Bell: "Letters on the Education of a Surgeon," Edinburgh, 1810, pp. ix and 503.

Removes to
London

After the withdrawal of John Bell from teaching, Charles took over the anatomy class in 1799, but the opposition to his brother militated against his success, and he never attracted more than 90 students. He determined, therefore, in 1804, to remove to London, where, in 1811, he took over the old Hunterian Anatomical School in Windmill Street, where he spent 32 busy and eventful years.

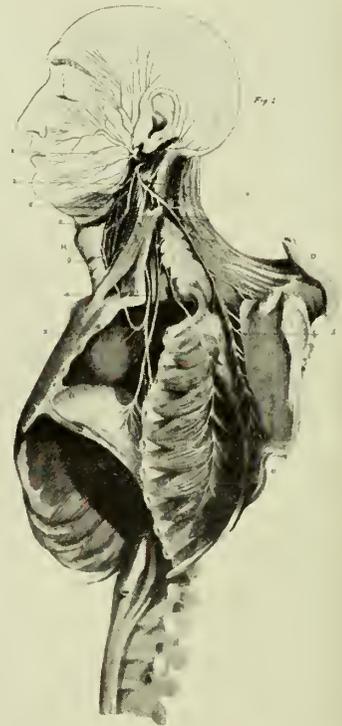
The Edinburgh School made some amends to Bell and to its own reputation by offering him the chair of surgery in 1836, when the Gregory faction had passed away. We are not concerned here with his London period, but one important field of his activities must be mentioned, to which he had been directing attention in the early Edinburgh days, and upon which his fame largely rests.

New idea of
the nervous
system

Since the days of Whytt and Haller, the minute ramifications of the nervous system had been a matter of common knowledge; but the nerves were regarded as merely exerting some vague influence over the parts to which they were distributed, and effecting a sympathy between different regions of the body. Whytt, in 1755, was ahead of his time in expressing the opinion that "the power of motion, when stimulated, proceeds from the nerves, or is at least immediately dependent on their influence."¹ Charles Bell was the first to whom it occurred that definite nerves have a definite course from some part of the brain to a certain portion of the periphery, and, further, that different nerves have quite distinct functions.

This led to his "Idea of a New Anatomy of the Brain," printed for distribution in 1811, but often mentioned by him before that time. This publication included the specific instance of the motor function of the anterior nerve roots, first discovered by him. It led to the more complete demonstration of motor and sensory nerves by Magendie in 1822, to the localisation of the *noeud vital* by Flourens in 1837, and to the great subsequent developments in mapping out nerve paths and centres in the brain and cord.

Charles Bell, like Harvey, was thus a pioneer in scientific medicine, and it gives no cause for wonder that on one occasion when Bell was visiting Paris, Roux dismissed his class without the lecture for the day with the words: "C'est assez, Messieurs, vous avez vu Charles Bell."²



PLAN OF RESPIRATORY NERVES
drawn by Charles Bell
(Plate IX. from "The Nervous System of the Human
Body," by Sir Charles Bell)

¹ "Works of Robert Whytt," 1768, p. 324.

² Struthers: "The Edinburgh Anatomical School," Edinburgh, 1867, p. 54.

The episode of surgical anatomy in Edinburgh ended for a time when Charles Bell shook off the dust of this city from his feet in 1804, but this branch was revived some 20 years later by a brilliant group of surgeon anatomists, including Lizars, Liston, Syme and Fergusson.

In 1770, the medical school of the university was augmented, apparently in a somewhat unexpected manner, by the Crown. In January of that year, Dr. Robert Ramsay presented a petition to the Town Council, stating that he had been appointed by the king, on 13th March, 1767, regius professor of natural history and keeper of the museum in the university, with a salary of £70 per annum. He craved that the Town Council would concur. This was done, and Dr. Ramsay was given an inventory of the curiosities belonging to the university.

Natural
history
chair

This natural history museum had been gradually collected during the previous century, Dr. Andrew Balfour and Sir Robert Sibbald having been enthusiastic in collecting natural curiosities from all countries. In 1697, Sibbald had presented his specimens to the College of Edinburgh, along with a catalogue which bore the title "Auctorium Musæi Balfouriani e Musæo Sibbaldiano." Sibbald's collection was gradually augmented, and the Town Council, when they appointed the first professor of anatomy in 1705, instructed him to take exact notice and inspection of the rarities of the college.

Museum

The collection later fell into disorder, and by 1770, when Ramsay was appointed the first professor of natural history, Sibbald's museum had practically disappeared, the only article from it left at the present day being a horn removed from a woman's head, which is now in the anatomical museum of the university, with a silver plate attached, upon which the history of the patient is recorded. Ramsay appears to have bestirred himself little, either to add to the museum or to give lectures, but, on his death in 1779, Dr. John Walker was appointed his successor, and immediately commenced to get together a new natural history collection for the use of his class, to which he gave a regular course of lectures. He was succeeded in the chair by Dr. Robert Jameson in 1804, and for 50 years this professor continued with great success to gather contributions to the museum from all parts of the world.

In 1819, the collection was supplemented by the Senatus, who purchased the natural history collection of M. du Fresne in Paris for £3000, and in the following year a regius museum of natural history for the reception of the various collections was completed, occupying the whole of the west end of the university quadrangle. Still further additions were made to this collection, which, about the middle of the 19th century, was considered one of the great features of the university. In 1852, the Senatus petitioned the Government to take over the natural history collection of the university, which had become too large for the museum provided, and the university museum, passing under the control of the Government, formed the nucleus for the neighbouring museum of science and art.¹

¹ Grant: "Story of the University of Edinburgh," London, 1884, Vol. I., p. 374.

The development of the faculty of medicine in the university during the first three-quarters of a century of its existence was chiefly along the lines of medicine, although several important representatives of surgical practice were found in the Incorporation of Surgeons. The subject of surgery was treated simply as an appendix to the lectures on anatomy delivered by the first two Monros, of whom the second was a consulting physician with a large practice.

Proposals for
a chair of
surgery

Efforts were made, chiefly by the Incorporation of Surgeons, to bring about more thorough teaching of surgery. Thus, Alexander Hamilton, on becoming Deacon of the Incorporation in 1777, made a strenuous attempt to have the separate teaching of surgery introduced in the university, and did not hesitate to declare the great Monro (*secundus*) "unable to give the rudiments of the art of surgery." Monro is said never to have operated as a surgeon, though he was consulted in surgical cases.

At a later date the University Commissioners of 1826 made a strong recommendation that surgery should be taught as a separate subject from anatomy, and that a chair in the former should be founded, but all these efforts were resisted as an infringement of the interests of the Monro family, until the College of Surgeons, by an amusing expedient which will be mentioned later, forced the appointment in 1831 of a professor of surgery to the university.

Alexander
Wood

One of the best known of the 18th century Edinburgh surgeons was Alexander Wood (1725-1807), known to his contemporaries as "Lang Sandy Wood," and greatly respected for his dexterity in practice, which did much to raise the reputation of the surgical department in the Royal Infirmary, as well as beloved for his amiable social qualities. The general opinion of him, in a day when Edinburgh doctors were celebrated for disputation and bickering, is summed up in a couplet by the writer of a parody on Byron's "Childe Harold":—

" Oh, for one hour of him who knew no feud,
Th' octogenarian chief, the kind old Sandy Wood."¹

John Kay has represented him in wig and cocked hat with an umbrella under his arm, in allusion to the fact that he was the first person in Edinburgh



ALEXANDER WOOD
("Lang Sandy Wood") (1725-1807)
(From Kay's "Portraits")

¹ "Fragment of a Fifth Canto of Childe Harold's Pilgrimage," *Blackwood's Magazine*, May, 1818, p. 202.

to make use of the latter article. At a time when personal peculiarity was widely affected by Edinburgh people, Wood specially distinguished himself by going to see his patients accompanied by a pet sheep and raven.

James Rae (1716-1791) entered the Incorporation of Surgeons in 1747, and was Deacon in 1764. He came of a Stirlingshire family, of whom several were distinguished in medicine, one having been physician to Charles I. He was a talented surgeon and was one of the first in Edinburgh to urge that surgery



GROUP OF EDINBURGH DOCTORS
 showing from left to right, Mr. James Rae, Dr. William Laing with his niece, and
 Sir James Hay, Bart., M.D., of Hayston

(From Kay's "Portraits")

deserved to be taught in a complete course of lectures, apart from anatomy. He devoted special attention to diseases of the teeth, and gave occasional lectures upon dentistry.

About the year 1766, he began a course of general lectures on surgery, which proved popular with the students, so that in 1769, they requested him to deliver lectures upon surgical cases in the Royal Infirmary. This project being approved both by the Incorporation of Surgeons and by the Managers of the Royal Infirmary,

Clinical
 surgery
 lectures

he conducted clinical lectures for a period of several years, and was thus the first lecturer upon clinical surgery in Edinburgh.

John Rae

Rae originally practised in a house at the head of the old Fleshmarket Close, and afterwards removed to the Castlehill.¹ His son, John Rae, entered the Royal College of Surgeons in 1781, and was its president in 1804. Like his father, he paid special attention to dentistry, and was so skilled in the extraction of teeth, that



A CONVIVIAL INCIDENT OF THE 18TH CENTURY

On the left is John Rae carrying a bottle, in attendance on Mr. Hamilton Bell, W.S., who for a wager is carrying a vintner's boy in the morning hours to Musselburgh, whose fish-wives are seen on the right.

(From Kay's "Portraits")

a celebrated wit, the Hon. Henry Erskine, described an operation conducted by him as being "suaviter in modo et fortiter in RE." In the days of threatened Napoleonic invasion he was a celebrated volunteer, and died in 1808.²

¹ Kay: "A Series of Original Portraits," Edinburgh, 1842, Vol. 1, p. 424; also Gibson: "An Edinburgh Medical Family," *Edinburgh Medical Journal*, July, 1929, p. 419.

² Kay: *Op. cit.*, Vol. II, p. 283.

Benjamin Bell (1749-1806) was a native of Dumfries, where he served an apprenticeship to Mr. James Hill, surgeon. At the age of 17, he came to Edinburgh to attend the medical classes, and afterwards spent two years in the great surgical school of Paris, and in London, where he studied under William Hunter. His reason for going abroad indicates the character of the Edinburgh Medical School in 1770. He said: "Had I been now entering to the

Benjamin
Bell



BENJAMIN BELL (1749-1806)

world as a physician, I should never have thought of going farther than where I have been; but for a *surgeon*, I assure you Edinburgh comes greatly short of either Paris or London, and for that reason, Dr. Monro and any others that I have spoke to here upon the subject, approve of the scheme very much."¹

Benjamin Bell should be regarded as the first of the Edinburgh scientific surgeons. He was one of the first to seek for some means of preventing or diminishing pain in surgical operations, and, in his "System of Surgery," described several methods for effecting this, which, however, were superseded 60 years afterwards by the introduction of ether and chloroform.

His works

In his paper, "On the Chirurgical Treatment of Inflammation" (1777), he described the use of the seton, a practice recommended 30 years earlier by James Rae. His most important contribution to surgery was his "Treatise on Gonorrhœa Virulenta and Lues Venerea," published in 1793, in which, for the first time, he distinguished clearly between these two diseases. His "System of Surgery," in six volumes, was an attempt to rival Heister's "System of Surgery," the great

¹ "The Life, Character and Writings of Benjamin Bell," by his Grandson, Benjamin Bell, Edinburgh, 1868, p. 23.

surgical text-book of that time, and though it was unfavourably criticised, both by his contemporary John Bell and by Sir Benjamin Brodie, it went through seven editions and was translated into French and German.¹

Other
Edinburgh
surgeons

In addition to those physicians and surgeons who have been already mentioned as teachers in the Edinburgh Medical School during the latter half of the 18th century, several others rose to distinction as practitioners or in other fields.

William Graeme, who joined the Incorporation of Surgeons in 1725, delivered lectures in the theatre of the Surgeons' Hall after Monro had transferred his anatomical class to the university. He was the author of an "Essay for Reforming the Modern Way of Practising Physic at Edinburgh," and he afterwards went to practise in London.



BENJAMIN BELL
(From Kay's "Portraits")

James Russell, who joined the Incorporation of Surgeons in 1747, became professor of natural philosophy in the University of Edinburgh in 1764, and was father of the first professor of clinical surgery in the university of the same name.

Robert Walker (1718-1791), who joined the Incorporation of Surgeons in 1747, had a distinguished service as a naval surgeon, and was the author of an important "Enquiry into the Smallpox, Medical and Political," published in 1790.

Among the Edinburgh physicians of this period who deserve mention was Sir John Pringle, celebrated as a military physician. During his period of practice in Edinburgh he also acted as professor of moral philosophy in the University of Edinburgh from 1734 to 1745. (See Chapter XVII.).

Sir Stuart Threipland, who will be more fully noticed in the same military connection, graduated M.D. at Edinburgh in 1742, and in 1744 joined the College of Physicians, of which he later became president.

William Buchan, who graduated at Edinburgh in 1761, practised for a time in Edinburgh and afterwards went to London. He is noticed in Chapter XVII.

¹ Miles: "The Edinburgh School of Surgery before Lister," London, 1918, p. 59.

James Latta, who joined the Incorporation of Surgeons in 1783, was the author of "A Practical System of Surgery."

William Brown, who joined the Incorporation of Surgeons in 1793, was for some time in the navy and afterwards passed into the Russian service as a physician in Siberia. He was the author of several treatises on "The Establishment of a Universal Written Character," "Observations on the Course of Fever in Britain," "The Power of Medicine in Controlling Fever," etc.



ADAM AUSTIN (1728-1773)

(Original by Allan Ramsay in the Royal College of Physicians, Edinburgh)

Adam Austin (1728-1773), who joined the Incorporation of Surgeons in 1749, and became a Fellow of the Royal College of Physicians in 1762, was placed in charge of the military wards in the Royal Infirmary of Edinburgh.



NATHANIEL SPENS

(Original by Sir Henry Raeburn in possession of King's Bodyguard of Archers for Scotland)

Nathaniel Spens, who joined the Incorporation of Surgeons in 1751, and became President of the Royal College of Physicians in 1794, graduated at St. Andrews and practised in Edinburgh, but is chiefly remembered at the present day because he formed the subject of what is generally regarded as the chief masterpiece executed by Sir Henry Raeburn. The painter has represented him in the uniform of the Royal Bodyguard of Archers, in which he held the rank of Adjutant-General.

The general type, and some of the peculiarities of medical practitioners in Edinburgh the 18th century, can be gathered from the etchings and biographical notices of John Kay. These concern practitioners in Edinburgh, who, however, were doubtless representative of their medical contemporaries in other Scottish towns.

Dr. Glen, whose brother was Governor of one of the West India islands, had also practised abroad, made a fortune and returned to his native country. He was celebrated chiefly for his parsimonious habits, in illustration of which it is recorded that when he married for a second time, at the age of seventy, one of the inducements held out to the prospective Mrs. Glen was the promise of a carriage. After marriage, the doctor was faithful to this promise, and the carriage was procured—but no horses, the doctor pointing out that this was more than he had bargained for. When his wife died, he adopted the ingenious expedient, with a view to lessening the funeral expenses, of attempting to procure a second-hand coffin to hold the remains.¹

Dr. Gregory Grant was another Edinburgh physician who had graduated at Leyden in 1740, and practised for a time at Rotterdam. Returning to Edinburgh, he lectured upon practice of physic about 1770, had a large practice, and was a great entertainer, his house in James's Court being celebrated for its musical suppers, attended by the Duchess of Gordon and other ladies of high rank. When he visited patients in the country, he rode a cream-coloured horse, followed by a servant wearing the Grant livery.²

Mr. John Shiells was a surgeon and apothecary who died in 1798, leaving a good deal of money, although his charge for a visit had been the modest sum of



GREGORY GRANT
(From Kay's "Portraits")

¹ Kay: "A Series of Original Portraits," Edinburgh, 1842, Vol. I., p. 26.

² Kay: Op. cit., Vol. II., p. 109.

one shilling. He made his rounds upon a grey pony, followed on foot by a boy who carried his walking stick and held the horse while his master was in the houses of the patients.¹



JOHN SHIELLS
(From Kay's "Portraits")

in jovial mood took their seats, and, to the amazement of a crowd, were driven in slow time from the inn at Leith where they had dined, to be deposited at the theatre.²

An extraordinary character was Dr. James Graham, born at Edinburgh in 1745. After studying medicine at Edinburgh, he practised in England and later in America, where he made a great deal of money. Returning to London, he established his "Temple of Health" in Pall Mall, an establishment

Mr. John Bennet, after acting for some years as surgeon to the Sutherland Fencibles, entered into a surgical partnership in Edinburgh in 1783, and became president of the Royal College of Surgeons in 1803. He was celebrated as a practical joker in an age when frolics among the medical profession were extremely fashionable. On one occasion, when entertaining a numerous company to dinner and the theatre, in fulfilment of a wager which he had lost, he provided a number of mourning coaches in which the diners



JOHN BENNET
(From Kay's "Portraits")

¹ Kay: "A Series of Original Portraits," Edinburgh, 1842, Vol. I., p. 397.

² Kay: Op. cit., Vol. I., p. 401.

“in which all the exertions of the painter and statuary—all the enchantments of vocal and instrumental music—all powers of electricity and magnetism were called into operation to enliven and heighten the scene. In a word, all that could delight the eye or ravish the ear—all that could please the smell, give poignancy to the taste, or gratify the touch, were combined to give effect to his scheme.”



JAMES GRAHAM (1745-1794)
 crossing old North Bridge, Edinburgh
 (From Kay's "Portraits")

In 1783, he returned to his native city, where he commenced to lecture upon the preservation of health, and attracted notice by dressing in white linen clothes with black stockings, and by driving about the city in a carriage of the most splendid description, attended by servants in gorgeous liveries. He was assisted in his lectures by Vestina, a beautiful young woman who appeared on a pedestal at the lecture, and subsequently became Lady Hamilton. The magistrates of

Edinburgh disapproved of his lectures and fined him £20, but he continued to give more and more eccentric discourses in the New Jerusalem Church, until, in 1788, he developed such signs of insanity that he had to be placed under restraint. He died six years later.¹

Royal
Medical
Society

An important part in the educational advantages of the Edinburgh Medical School has been played by a medical society of students which commenced in the year 1734. In August of that year, six men studying medicine at Edinburgh



SURGEONS' SQUARE IN 1829

Showing from left to right, Surgeons' Hall of 1697, Gordon's Class-room, Knox's (formerly Barclay's) Class-room, and Royal Medical Society's Hall

—Dr. Cleghorn, Dr. Cuming, Dr. Russel, Dr. Hamilton, Mr. Archibald Taylor and Dr. James Kennedy—who were in the habit of spending social evenings together at a tavern, decided that this little society should meet regularly once a fortnight at their respective lodgings, when a dissertation in English or Latin on some medical subject should be read by each of the members in rotation and criticised by the other five. In 1735, Cleghorn, who later became professor of anatomy in Dublin, was the only member left in Edinburgh. He and some other students, including William Cullen, who had come to Edinburgh as a student, and John Fothergill,

¹ Kay: "A Series of Original Portraits," Edinburgh, 1842, Vol. 1., p. 30.

continued the meetings, and the Society was definitely constituted as the Medical Society of Edinburgh by ten members towards the end of the year 1737. Mr. (later Sir) Stuart Threipland, the physician of Prince Charlie, was one of the members in this year. (See Chapter XVII.).

The meetings took place in a tavern until the year 1763, when the Society obtained permission from the Managers of the Royal Infirmary to hold the weekly meetings in a room of the hospital. At the same time, the Society began to collect a library, which, by 1778, amounted to about 1500 volumes. A proposal was made about this time to build a hall for the meetings, which was warmly supported by various friends among the professors and the practitioners of Edinburgh, particularly by Doctors Cullen, Hope and Duncan. Finally, under the presidentship of Mr. Gilbert Blane, the foundation stone of the Medical Hall was laid by Dr. Cullen, and the Hall on the west side of Surgeons' Square was opened on 26th April, 1776.

Early meetings

The Society has included in its list of members the names of many men who afterwards attained eminence, and among those in the early days are the names of Mark Akenside (1740) and Oliver Goldsmith (1753).

Famous members

SIGNATURE OF OLIVER GOLDSMITH
on joining the Medical Society, on January 13, 1753

Goldsmith also attended the classes taught by Monro, Plummer and Alston. After a session of medical study in Edinburgh, he went on to Leyden, and from there he wrote home to say "Physic is by no means taught so well here as in Edinburgh; and in all Leyden there are but four British Students, owing to all necessaries being so extremely dear, and the Professors so very lazy (the Chemical Professor excepted) that we don't much care to come hither."¹

From its list of annual presidents, many have become teachers in the Edinburgh School or have attained distinction in other places. In the present Hall are two memorial tablets to presidents of the Society, Jacob Pattison and Francis Foulke, who died during their terms of office. The latter was killed in a duel on 22nd December, 1789. A quarrel with an officer, Mr. G., having occurred, a challenge ensued, and the two met on Seafield Sands attended by their seconds. At the third discharge of pistols, Foulke fell with a bullet in his heart.²

¹ Quoted by Grant: "Story of the University of Edinburgh," Vol. II., p. 493.

² Grant: "Old and New Edinburgh," Vol. III., p. 266.

Other
student
societies

A Royal Charter was obtained for the Society from King George III. in December, 1779, largely by the exertions of Dr. Andrew Duncan. At this time there was a kind of obsession for the foundation of Societies, both among the students and the practitioners of the town. These included the Medico-Chirurgical Society (founded in 1767), the Physico-Chirurgical Society (1771), the Chirurgo-Physical Society, the American Physical Society, the Hibernian Medical Society, the Chemical Society, the Natural History Society and the Didactic Society. All of these waned and were one by one absorbed by the Royal Physical Society, which was incorporated in 1788, after erecting a hall in immediate proximity to the Royal Public Dispensary in 1784.

The Royal Medical Society, however, continued to flourish as a meeting-place for students. Its objects, in the words of an early president, were "mutual improvement and the investigation of truth; the development of the seeds of genius, and the detection of falsehood; the emancipation of the mind from the fetters of prejudice, and the cultivation of true friendship by social and liberal intercourse." At its weekly meetings during the winter session, the plan proposed at the beginning of the Society was followed, by which the members in turn submitted a dissertation on some prescribed subject, which was discussed by the Society, with occasional addresses from former members, and debates.

New hall

In the middle of the 19th century, partly in consequence of the Society having outgrown its premises at Surgeons' Square, partly because these premises were showing signs of decay, and partly because the character of the locality at Surgeons' Square had changed, the present Hall at Melbourne Place was opened on 7th November, 1852.¹

American
students

During the latter half of the 18th century, Edinburgh was the great medical resort of all the Britons beyond the seas, much as Leyden had been the resource for those who wished to take a medical degree half a century earlier. The number of graduates is not, however, an indication of the number of students, for many men who studied medicine at Edinburgh took the qualification of the College of Surgeons, while, right up to the passing of the Medical Act in 1858, a large number of students were content to learn their profession as apprentices to some practitioner, and to take a few classes at some medical school, such as Edinburgh, without proceeding to graduation. Out of 13 graduates in 1765, five belonged to Scotland, five were American, two English and one Irish. In 1787, after the troubles connected with the War of American Independence had subsided, out of 44 graduates, 19 were Scottish, nine English, six came from America, and 10 were Irish.

During the century following 1765, when the Medical Faculty had been in existence 40 years, no fewer than 650 students coming from the Americas (including the West Indies and Canada) graduated at Edinburgh University. This figure does not include a number, probably larger still, who came to take a

¹ Stroud: "History of the Royal Medical Society," Edinburgh, 1820.

few classes after receiving a degree elsewhere, or who took the licentiateship of the College of Surgeons at Edinburgh.

Several of the most distinguished pioneers of American medicine graduated at Edinburgh: for example, William Shippen (with a thesis entitled "De Placentæ cum Utero Nexu," 1761), John Morgan ("De Puris Confectione," 1763), Samuel Bard ("De Viribus Opii," 1765), Benjamin Rush ("De Coctione Ciborum in Ventriculo," 1768), and Philip Syng Physic ("De Apoplexia," 1792).¹ Ephraim McDowell, the Kentucky ovariectomist, studied in Edinburgh (1793-1794), though he did not graduate.

Student life at Edinburgh has, in general, shown little corporate character. At the time when the Town's College was founded, the original idea of the Town Council was that the college should contain resident students with an "economy," or common table, but funds were never available for this purpose. A few students resided in chambers provided in the college, and catered for themselves, but by degrees the students ceased to occupy these chambers, and by the early part of the 18th century college residence had virtually ceased, students living at home or in lodgings. Student life thus merged in the life of the ordinary citizens. The Town Council also at first laid down a rule that students must wear gowns, but this was never enforced.²

Student life in 18th century

Prior to 1726, persons learning the art of medicine in Edinburgh were apprentices either of the surgeons or physicians, living in their families, and had no connection with the Town's College, where medicine was not yet taught. No doubt these apprentices often took part with students of the Town's College in such events, for example, as the celebrated burning of the pope's effigy in December, 1680, when the Duke of York was in residence at Holyrood. On that occasion the students, joined by a large accession of apprentices, successfully evaded the troops drawn up in the Grassmarket, Parliament Close, and other open spaces, and pursuing a course by some of the narrow closes, set fire to the pope's effigy in the High Street and scattered before the troops could interfere.

Shortly after 1726, when the Medical Faculty was founded in the university, medical students began to exert themselves in the formation of societies, of which the Royal Medical Society was the chief, and these introduced a great deal of critical and corporate intellectual activity.

Frugality was practised by many students at Edinburgh as at the other Scottish universities in the 18th and early 19th centuries. Principal Lee, in his evidence before the Commission of 1826, gave some instances of this. He mentioned, for example, a student who during two sessions had, on an average, spent 6s. 9d. weekly, amounting in a session of 24 weeks to £8 2s., and receiving in this time only occasional supplies of food from the country. He breakfasted on porridge and milk, he had for dinner broth and a little meat, or bread and milk, or potatoes and herrings, and had tea in the afternoon, but no supper.

Frugality

¹ "Edinburgh Medical Graduates, 1705-1866," Edinburgh, 1867.

² Grant: "Story of the University of Edinburgh," London, 1884, Vol. II, p. 469.

Lee also mentioned two students who lived together all the winter on 5s. a week each, or £6 in six months, and he also instanced some students who scarcely ever used candles, but prepared their lessons by the light of the fire. These were, however, undoubtedly extreme instances.

Duels

Duels between Edinburgh students were not uncommon in the 18th and early 19th centuries, and were sometimes attended by fatal results, as in the case already mentioned of the duel between a president of the Royal Medical Society and an officer. Another duel, which seems to have been conducted with singular determination, is mentioned by Kay.

“ ‘ Wednesday morning, July 3 (1805), a duel was fought, in the neighbourhood of Duddingstone, between Mr. Romney and Mr. Leckie, students attending the medical classes in the University, when the latter received a wound in the groin, in consequence of which he died next Saturday morning. Four shots were, we understand, exchanged. Mr. Leckie received his wound by the first fire, but did not discover it. After shaking hands with his antagonist, he declared he was mortally wounded, and desired Mr. Romney, the seconds, and the surgeons, who attended, to make their escape, which they accordingly did.’ ”¹

So notorious, indeed, was quarrelsomeness among Edinburgh professors and Edinburgh students about this time, that Benjamin Franklin, in his *Autobiography* (written about 1771), says :—

“ There was another bookish lad in the town, John Collins by name, with whom I was intimately acquainted. We sometimes disputed . . . which disputatious turn, by the way, is apt to become a very bad habit, making people often extremely disagreeable in company by the contradiction that is necessary to bring it into practice ; and thence, besides souring and spoiling the conversation, is productive of disgusts and, perhaps enmities, where you may have occasion for friendship. . . . Persons of good sense I have since observed, seldom fall into it, except lawyers, university men, and men of all sorts that have been bred at Edinborough.”²

¹ Kay : “ A Series of Original Portraits,” Edinburgh, 1842, Vol. I., p. 403.

² Franklin : “ *Autobiography*,” London, 1905, Everyman edition, p. 17.

CHAPTER XV

THE EARLY MEDICAL SCHOOL OF GLASGOW TO THE END OF THE EIGHTEENTH CENTURY

GLASGOW, until the early part of the 19th century, was not a town of great size. About the middle of the 16th century it seems to have occupied only the 11th place in size among the Scottish towns, with a population of between 4000 and 5000,¹ and even at the beginning of the 17th century it occupied about the same relative position. It consisted practically only of the High Street, Early state
of Glasgow



GLASGOW, IN THE 17TH CENTURY, FROM THE EAST

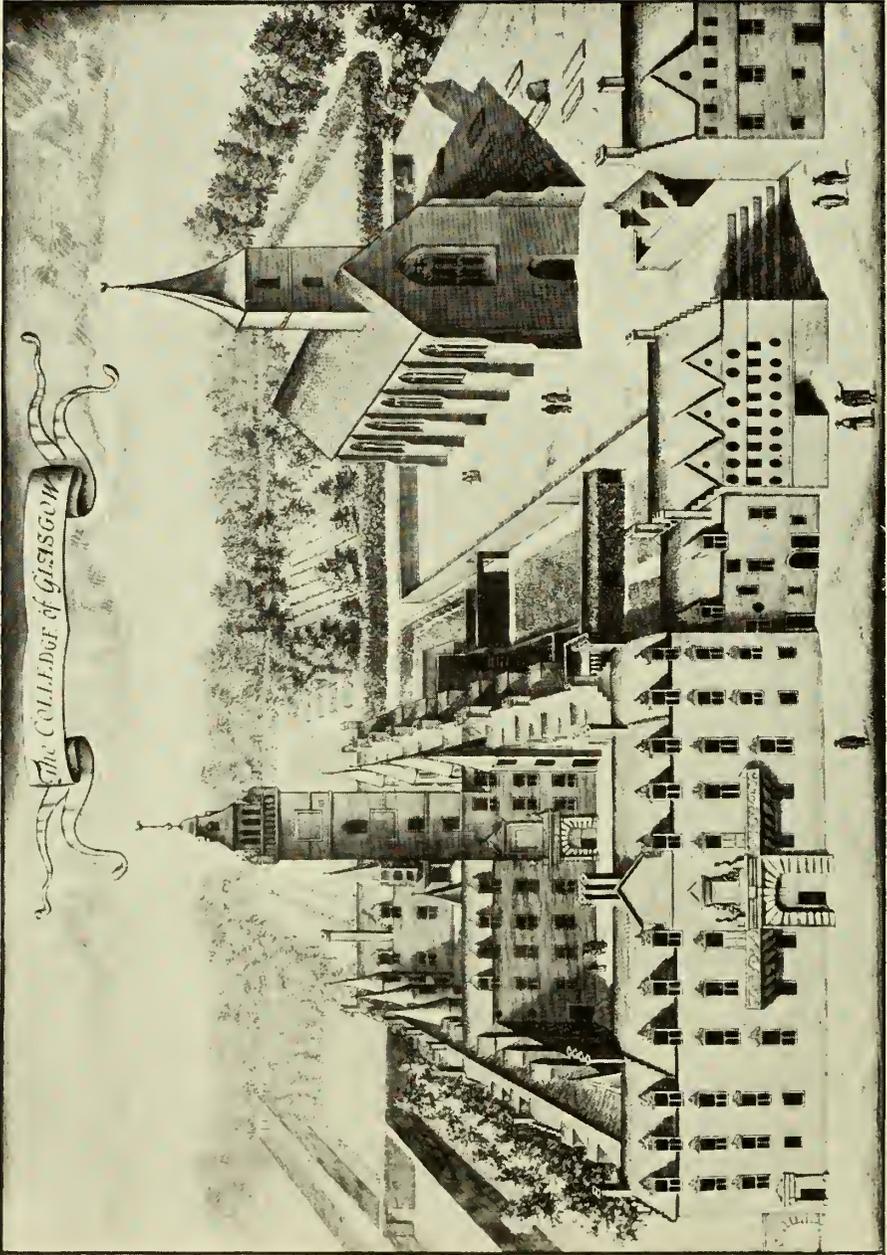
The Bishop's Castle, upon the site of which the Royal Infirmary was built, is shown beyond the Cathedral.

The College is in the centre of the spires to the left

(Engraving by Slezer)

crossed at its upper end by Rotten Row, and at its southern end by the Trongate, with a few straggling houses between this and the Clyde, and numerous narrow wynds branching off from both sides of the main streets. The College was in the High Street not far from the Cathedral. Most of the houses had gardens behind, and, in the 16th and 17th centuries, Glasgow must have been a pleasant little town.

¹ Gibson: "History of Glasgow," Glasgow, 1777, p. 78.



THE OLD COLLEGE OF GLASGOW AND BLACKFRIARS CHAPEL, WITH COLLEGE GARDEN BEHIND

(From engraving by Sizer about 1690)

The buildings were demolished about 1874. The front entrance is preserved as the lodge at Gilmorehill

In the early part of the 12th century, David I. settled a bishop at Glasgow, and, in 1175, William the Lion granted to the bishop the right of having a burgh of barony, although the place was not a royal burgh. In these surroundings a "*studium generale*" was founded at the instance of Bishop Turnbull by a Bull of Pope Nicholas V., in 1451, and this, in a letter of James II., under the Great Seal in 1453, is called the University of Glasgow. Medicine does not, however, appear to have been actively taught in this university for a long time after its foundation. In 1469, Andrew de Garleis, *Doctor in Medicinis*, seems to have been admitted to the university, but there is no further trace of him. In 1536, Andrew Borde speaks of studying and practising medicine in Glasgow, where his services were in request and countenanced by the university. He was an agent of Thomas Cromwell, maintaining communication with the political party favourable to England.¹

University
founded

The early meetings of the university were held in religious houses connected with the Cathedral, and, in 1460, Lord Hamilton gifted a tenement with surrounding ground in the High Street, which was subsequently augmented by the gift of a neighbouring tenement and strip of land.

In the 16th century, barber-surgeons and physicians probably came from other places and settled in Glasgow, and it appears from records of the Town Council, mentioning regulations directed against plague, leprosy and other diseases, that the Council had the benefit of expert advice in these matters.

Barbers and
physicians

Plague was a serious and destructive disease to the early inhabitants of Glasgow. It appeared several times during the 14th century.² In the 15th century and 16th century, the city was four times ravaged by plague: namely, in 1455, 1501, 1515 and 1545,³ and at this time Glasgow was a place of suspicion to the neighbouring authorities of Edinburgh. In 1584 and 1588, when plague was present in the burghs of the Fife coast and in Paisley, the Glasgow authorities established a rigid quarantine against the infected districts, and the danger was averted.

The most serious epidemic of the plague which visited Glasgow was that of 1645-1648, when a house-to-house visitation was adopted, daily reports sent to the magistrates regarding the sick, and an old expedient, which had been previously tried, of transporting the plague-stricken out of town to the muir, was practised. At this time the principal, regents and other members of the College were transferred to the town of Irvine. Long before 1665, however, when the plague made its memorable visitation of London, Glasgow had been freed by these means from the dreaded disease.⁴

To compensate for the scanty inducements to ordinary practice, the Town Council of Glasgow, at an early period, began to offer salaries to doctors whom they invited to settle in the place. There is a minute of the Town Council of 17th May, 1577, to the effect that "Alexander Hay, chirurgian," was granted

Town
Council
subsidises
doctors

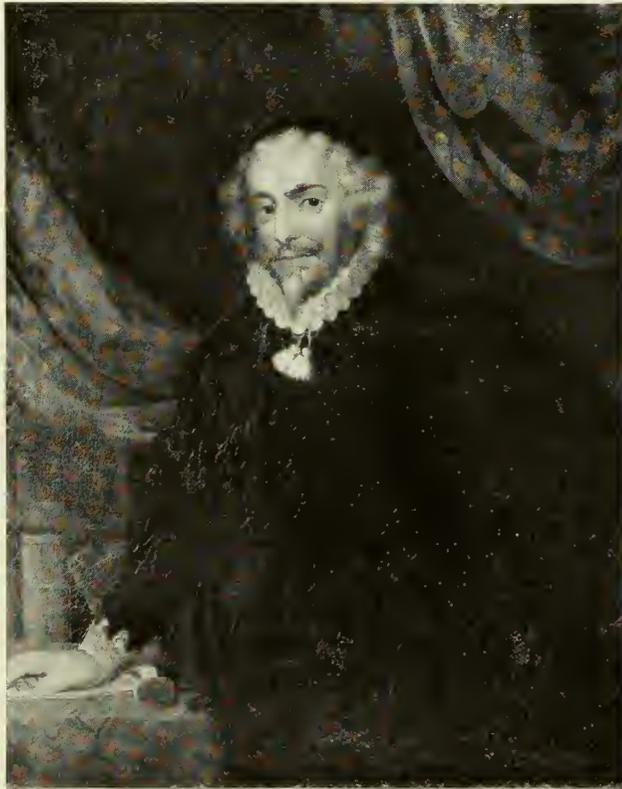
¹ Buist: "Andrew Borde," *Caledonian Medical Journal*, June, 1921.

² Gibson: "History of Glasgow," pp. 72 and 73.

³ Couatts: "History of the University of Glasgow," Maclehose, Glasgow, 1909, p. 3.

⁴ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow, 1599-1850," Glasgow, 1896, pp. 10 and 11

a yearly pension of ten merks, to be paid by the Treasurer of the town, while, at the same time, he was made a burgh and freeman of the burgh, and to be free from taxes, conformably to the privilege held by James Abernethie, his master, previously.¹ In 1589, it is recorded that Thomas Myn, a salaried surgeon,



PETER LOWE (ca. 1550-1613)
(Original picture in the Hall of the Royal Faculty of Physicians and Surgeons of Glasgow)

was brought up before the Council for speaking slanderously of the town, calling it the "hungrie toun of Glasgw." For this offence, the culprit was ordained to forfeit his pension for one year, the money to go to the improvement of the burgh.² Allaster M'Caslan was another surgeon mentioned as being paid by the baillies for "curing of sindry pair anes in the townne" in 1596.³

At the end of the 16th century, the number of surgeons practising in the town probably did not exceed six, and there appears to have been only one physician. There were, however, in addition, at least two midwives, who transacted most of the obstetric practice of the burgh.⁴ In the year 1598, the Kirk Session appears to have taken an active

interest in medical life, for it sent a deputation to the Town Council representing that an enquiry should be made as to those practising within the town, who pretended to have skill in medicine and had not the same, and that those who had skill should be retained and the others rejected.

Visitors
appointed

In April, 1599, the Town Council took action by appointing three baillies, three city ministers and three university officers, with other men skilled in the

¹ "Extracts from the Records of the Burgh of Glasgow, 1573-1642," Glasgow, 1876, p. 58.

² *Op. cit.*, p. 138.

³ *Op. cit.*, p. 178.

⁴ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow, 1599-1850," Maclehose, Glasgow, 1896, p. 18.

art, to examine for the future those who practised medicine in the town. This committee had, however, hardly got to work, when the matter was settled from another direction. King James VI. granted, in November, 1599, letters under the Privy Seal empowering Peter Lowe and Robert Hamilton, "professoure of medecine and their successouris indwelleris of our Citie of Glasgow," to examine and try all who professed or practised the art of surgery, to license those whom they adjudged fit, and to exclude the unqualified from practice, with power to fine those who proved contumacious.

These "visitors," as Lowe and Hamilton were called, reported to the city magistrates in cases of death by accident, violence or poison, and were empowered to exclude from the practice of medicine all who could not produce a testimonial of a famous university where medicine was taught. These extensive powers of licensing for medical practice extended over the burghs of Glasgow, Renfrew and Dumbarton, and the Sherifffdoms of Clydesdale, Renfrew, Lanark, Kyle, Carrick, Ayr and Cunningham, thus covering the greater part of the south-west of Scotland. This was the beginning of the Royal Faculty of Physicians and Surgeons at Glasgow.

Maister Peter Lowe probably arrived in Glasgow about the beginning of 1598, and the fact of his selecting Glasgow for his residence when he returned from the Continent raises the presumption that he belonged to the west of Scotland. From his use of the descriptive title "Arellian," it is possible that he may have been born at Errol or at Ayr. He was undoubtedly a Scot, because he appends the title "Scottishman" almost every time he writes his name, and he probably left Scotland for the Continent after the middle of the 16th century and about the time of the Reformation. He was a friend of Gilbert Primrose, Deacon of the Incorporation of Surgeons in Edinburgh, to whom, along with James Harvie, Surgeon to the Queen, he dedicates his "Chyrurgerie." Peter Lowe

He speaks of having had occasion to use remedies on service "in France, Flaunders and else-where, the space of twenty-two yeares: thereafter being Chirurgical-Major to the Spanish Regiments at Paris, two yeares: next following the French King my Master in the warres six yeares, where I tooke commoditie to practise all points and operations of Chyrurgerie."¹ As the Spanish regiments were assisting to hold Paris in 1588-1590 against Henry IV., this fixes the dates of his service on the Continent as lasting from 1566 to 1596. The period included such memorable historical events as the Massacre of St. Bartholomew and the Revolt of the Netherlands. From the side on which Lowe was serving, it appears that he was then a Catholic; and as he was later "ordinary Chyrurgion to the French King and Navarre," he must have changed sides about 1590, and probably at the same time changed his religion. His military experience

He also described himself as "doctor in the facultie of Chyrurgerie at Paris," and was, therefore, apparently a master surgeon of the Collège de St. Côme.

¹ Peter Lowe: "Chyrurgerie," Edn. of 1612; address to the reader. See also for full account, Finlayson: "Account of the Life and Works of Maister Peter Lowe," Glasgow, 1889.

His return to Britain was probably made in 1596, for in this year his book on "The Spanish Sicknes" was published in London. In the following year, 1597, his "Chyrurgerie" appeared, being dated from London, although the materials for the book had been collected abroad, and he made his appearance in Glasgow in the early part of 1598. He was not long in coming into collision with the power of the Kirk, for on 8th August, 1598, there is a minute of the Presbytery indicating that he had been condemned to stand on the "piller" for three Sundays, apparently for some offence against ecclesiastical discipline, and to pay a fine. Mr. Peter Lowe had apparently treated the punishment with ridicule, but whether he ever "made his repentance as ordanit" is a matter of which there is now no record.

His
"Chyrur-
gerie"

A book which must have been used to a considerable extent by Scottish practitioners, especially those in the west of Scotland, was the "Chyrurgerie" of Peter Lowe, first published in 1597, with later editions in 1612, 1634 and 1654. This little treatise was the outcome of Lowe's experience in France. It is essentially practical, and its descriptions of operations indicate, by their accuracy of detail, his personal knowledge and practical experience of the things of which he wrote. The earlier part of it deals with the theory of surgical treatment, and takes the form of a dialogue between Peter Lowe and his son John, in which the latter is questioned and answers, somewhat after the manner of a catechism. Bound up with the "Chyrurgerie" is Lowe's translation of "The Presages of Divine Hippocrates."

The following extract gives a good example of Lowe's style, and describes the method used in the 17th century for an amputation of the leg:—

Amputation

"The usage of this ribben or band is divers. First, it holdeth the member hard and fast, so that the instrument or incising knife may cut more surely. Secondly, that the feeling of the whole parts may be stupified, and rendred insensible. Thirdly, that the fluxe of blood may be stayed. Fourthly, it holdeth up the skinne and muscles which must cover the bone after it be cut, and so it maketh it more easie to heale. The bandage then being thus made, wee cut the flesh with a rasor or incising knife, which must be somewhat crooked to the forme of a hooke or halfe moone.

Instruments, and Cutters actuals, for extirpation.

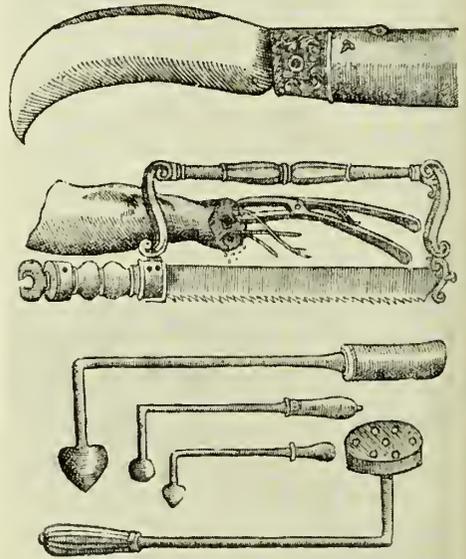


FIGURE OF 16TH CENTURY AMPUTATION
(From Peter Lowe's "Chyrurgerie")

"The flesh then being so cut to the bone, the said bone must be diligently rubbed and scraped with the backe of the sayd knife, which backe must be made purposely for that effect, to the end the periost which covereth the bone, may be lesse painfull in cutting of the bone. Otherwise it teareth and riveth with the same, so causeth great dolour: Also letteth [*hinders*] the cutting, although the bone have no feeling of it selfe. This being done, you must saw the bone with a sharpe sawe: then loose the ligatour, draw downe the skin, and cover the bone in all the pares; and if there be great putrifaction, let it bleed a little, for that dischargeth the part, and so is lesse subject to inflammation; then one of the Assisters shall put the extremities of his fingers on the great vaine & artiers, to stay them from bleeding, till the Chyrurgion either knit or cauterize them one after another."

The following is Peter Lowe's description of his operation for the relief of hernia, especially when it is strangulated, and of the truss which should be worn by elderly persons or by persons in whom the hernia is so great as to make operation unsuitable:—

"Of the Herne intestinall, called by the Greekes *Interocele*. This kinde of rupture Hernia is when the guts fall downe in the cods, either through ruption or enlarging of ye Periton where the spermaticke vessels doe passe, and where the muscles *Cremastres* doe end, and the membranines *Dartos* and *Erethroides* begin, wherein the gut Call or both doth fall. . . . If the fecall matter let [*hinder*] the reduction of it, you must use such remedie as is set downe in the last Chapter, with glisters to discharge the intestine. If by those remedies the intestine do not reduce, but the matter fecall doe waxe hard with great dolour, you shall make incision in the upper side of the codde, eschewing the Intestine. Thereafter put a little piece of wood up by the production of the Periton, neere unto the hole. Of dissent¹ the piece of wood must be round on the one side and flat on the other, whereon you shall make the rest of your incision, then rubbe the inticed part & whole of dissent with a little oyle of Cammonill, or Lyllies, which will make it lubricke, and cause it to reduce more easily. . . . This operation must not be used but in great necessity, and the sicke strong prognosticating of the daunger, *Ne fessisse aut ignorasse videaris*: being reduced, it must with bandages and astringent fomentations be contained, with this emplaister upon Leather . . . and keepe the bed for the space of fortie dayes . . . using in the meane time good dyet and of light digestion. Abstaine from strong drinke, weake and windie meats, from hoisting [*coughing*], crying, or other violent motion, so farre as the patient may. In the meane time, keepe open the wombe [*bowels*], and lye in such sort, that the head and shoulders be lower than the hanches and fundament: by these meanes sundry doe heale, when the dilation or ruption is not great. In great dilations and people of elder age, I find no remedie, save onely the bandage made of cloth with Cotton, Iron or Steele, as shall be most meete: such people as doe ryde great Horses and are armed, are much subject to this disease, as I have often seen amongst the French, Almaine, or Ryfters Horse-men: who for the most part have their bandages of Iron, eyther for one side or for both."²

For simple wounds in the flesh, Peter Lowe gives various dressings which follow closely upon the practice of Ambroise Paré. It is interesting to note that he apparently expected such wounds to heal by first intention, while his use of warm claret wine to wash the wound is an example of the early employment of alcohol as an antiseptic:—

¹ The two words "of dissent" belong to the previous sentence, but are printed here as in the original.

² Peter Lowe: "A Discourse on the Whole art of Chyrurgerie," 3rd edition, 1634, pp. 90 and 91, 247-249.

Simple
wounds

"The simple wound in the flesh, healeth by joyning the lippes of it together and helpe of nature; yet for the more assurance we use to let it bleed a little, if it hath not bled sufficiently already: next we dresse it with a cleane cloth or soft spunge, then we close, and put on it the white of an Egge with lynt, bind the wound, and stirre it not in two or three dayes; the white of the egge preserveth it from inflammation, heate, colour, and bleeding. If the wound be great that it joyneeth not by the simple ligator, wee use a suture, with pouders incarnative or retentives, composed of *Sanguis draconis*, Thus, Masticke, Bolarmenie, wheat flower, all mingled with whites of Egges, and a little oyle of Roses, with lynt on it as before. Also a double cloath broader than the wound, wet with oyle of Roses and vinegar, binde it, and stirre it not for two or three dayes, if accidents doe not chance; and being removed, wash it with warme Claret wine, wetting plumations in the same wine, which have the vertue to drye and comfort. If the wound be deepe and these remedies not sufficient, we make a liquor of oyle of Hypericon and Turpentine, with the yolke of an Egge, or a little of my balme set downe in the Chapter of Gunshot. I use, especially following the warres, this digestive made of yolkes of Egges hard roasted, and beaten with a little oyle of Hypeicon, Turpentine and Myrrhe, so this keeps a long time, and bringeth the wound to matter, the which not avoyding for the scituation, which is to high, we scituate the part in such sort, that the oriface is lowest."¹

As a result of the report by Peter Lowe to the Privy Council upon the abuses of medical practice in Glasgow, he got a privilege under the Privy Seal to "try and examine all men upon the Art of Chirurgerie, and to discharge, and allow in the West parts of Scotland, who were worthy or vnworthy, to professe the same." In 1601, he accompanied the Duke of Lennox, Lord Great Chamberlain of Scotland, who was appointed special ambassador for the Scottish King at the Court of France, upon an embassy to that country. For this purpose he obtained leave of absence from his duties in Glasgow with a continuation of his salary for a year.² In 1602, he was back again in Glasgow, and there are numerous other references to him in the minutes of the Faculty and those of the Town Council. He published a second edition of his "Chyrurgerie," dated 20th December, 1612, and died apparently in the next year.



FIGURE OF 16TH CENTURY TRUSS
(From Peter Lowe's "Chyrurgerie")

Faculty of
Physicians
and Surgeons

The great work of Peter Lowe was the establishment of the Faculty of Physicians and Surgeons, which embraced within its powers the regulation of the practice of medicine, surgery and pharmacy in the west of Scotland. The charter instituted medico-legal examiners who reported to the authorities, thus

¹ Lowe: "Discourse on the Whole Art of Chyrurgerie," Bk. VI., Ch. II., p. 297.

² "Extracts from the Records of the Burgh of Glasgow," p. 223

forming, in 1599, a very early example of State medicine. It was the duty of the Faculty to examine and license surgeons, but physicians were only to be called upon to produce the diploma from their university. As none of the Scottish universities at this time granted degrees in medicine, this presumably refers to graduates of foreign universities, who might be expected to settle in Glasgow. The Faculty also at a very early date undertook the gratuitous medical visitation and treatment of the sick poor. This practice was apparently taken by Peter Lowe from one of the regulations of the Collège de St. Côme at Paris.

The fact that physicians and surgeons were both included in the operation of the original charter, and that they have remained united in this body to the present day, has had a great deal to do with moulding the character of the Glasgow Medical School. Although the university did not establish a medical faculty till the beginning of the 19th century, the rapid rise of this school and its celebrity as a training-place for efficient general practitioners, has probably been largely due to the fact that its surgeons have always possessed a good knowledge of medicine, while many of its physicians have been competent practitioners of surgery. This charter is of so much importance for the influence which it has had on Scottish medicine that it is given here in full:—

The charter

“ JAMES, be the Grace of God, King of Scottis, to all Provostis, baillies of burrowis, scheriffs, stewartis, baillies of regalities, and otheris ministeris of justice within the boundis following, and their deputis, and all and sundrie otheris our leigis and subditis, quhom it efferis, quhase knowledge thir our letteris sal cumc, greiting, WIT ZE WE, with auise o oure counsall, understanding the grit abuisis quilk hes bene comitted in tyme bigane, and zit daylie continuis be ignorant, unskillit and unlermit personis, quha, under the collour of Chirurgianis, abuisis the people to their plesure, passing away but *[without]* tryel or punishment, and thairby destroyis infinite number of oure subjectis, quhairwith na ordour hes bene tane in tyme bigane, specially within oure burgh and baronie of Glasgow, Renfrew, Dumbartane, and oure Sheriffdomes of Cliddisdale, Renfrew, Lanark, Kyile, Carrick, Air and Cunninghame; FOR avoiding of sik inconvenientis, and for gude ordoure to be tane in tyme cuming, to have made, constitutit and ordanit, and be the tenoure of thir oure letteris, makis, constitutis, and ordinis Maister Peter Low, our Chirurgiane and chief chirurgiane to oure dearest son the Prince, with the assistance of Mr. Robert Hamiltone, professoure of medecine, and their successouris, indwelleris of our Citie of Glasgow, GEVAND and GRANTAND to thaim and thair successoures, full power to call, sumonnd, and convene before thame, within the said burgh of Glasgow, or onie otheris of our said burrowis, or publict places of the foirsaidis boundis, all personis professing or using the said airt of Chirurgie, to examin thame upon thair literature, knowledge and practize; gif they be fund wordie, to admit, allow, and approve thame, give them testimonial according to the airt and knowledge that they sal be fund wordie to exercise thareftir, resave thair aithis, and authorize thame as accordis, and to discharge thame to use onie farder nor they have knowledge passing thair capacity, laist our subjectis be abusit; and that every ane citat report testimonial of the minister and eldris, or magistratis of the parochin quhair they dwell, of thair life and conversatione; and in case they be contumax, being lauchfullie citat, everie ane to be unlawit in the soume of fortie pundis, toties quoties, half to the judges, other half to be disponit at the visitoures plesure; and for payment thairof the said Mr. Peter and Mr. Robert, or visitoures, to have oure uthere letteris of horning *[oullawry]*, on the partie or magistratis quhair the contemptuous personis duellis, chargeing thame to poind thairfoire, within twentie four houris, under the pain of horning; and the partie not haveand geir poindable, the

Abuses to be remedied

Territory covered

Visitors to examine and license



ROBERT HAMILTON



WILLIAM SPANG

(Original pictures in the Hall of the Royal Faculty of Physicians and Surgeons of Glasgow)

as
nec
" fr
was
a ce
and
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inco

magistrate, under the same pain, to incarcerate thame, quhill caution responsall be fund, that the contumax persone sall compir at sik day and place as the saidis visitouris sall appoint, gevan trial of thair qualifications :

“ *Nixt*, that the saidis visitouris sall visit everie hurt, murtherit, poisonit, or onie other persoun tane awa extraordinarily, and to report to the Magistrate of the fact as it is : To make reports

“ *Thirdlie*, That it sall be leisum to the said visitouris with the advice of their brethren, to mak statutis for the comoun weill of our subjectis, anent the saidis artis, and using thair of faithfullie, and the braikeris thair of to be punshit and unlawit be the visitoures according to their falt :

“ *Fordlie*, It sall not be leisum to onie mannir of personis within the foresaidis boundis to exercise medicine without ane testimonial of ane famous universitie quhair medecine be taught, or at the leave of oure and oure dearest spouse chief medicinarie ; and in case they failzie, it sal be lesum to the said visitouris to challenge, perseu, and inhibite thame throu using and exercing of the said airt of medecine, under the pain of fourtie poundis, to be distributed, half to the Judges, half to the pure, toties quoties they be fund in using and exercing the same, ay and quhill they bring sufficient testimonial as said is : University graduates to practise medicine

“ *Fythlie*, That na manir of personis sell onie droggis within the Citie of Glasgow except the sam be sichtit be the saidis visitouris, and be William Spang, apothecar, under the pane of confiscatioune of the droggis : Drugs to be inspected

“ *Sextlie*, That nane sell retoun poison, asenick, or sublemate, under the pane of ane hundred merkis, excep onlie the apothecaries quha sall be bund to tak caution of the byaris, for coist, skaith and damage : Poisons

“ *Seventlie*, Yat the saidis visitouris with thair bretherene and successouris, sall convene every first Mononday of ilk moneth, at sum convenient place, to visite and give counsell to pure disaisit folkis gratis : and *last of all*, Gevand and grantand to the saidis visitouris indwellers of Glasgow, professouris of the saidis airtis, and thair bretherene, p'nt and to cum, imunite and exemptioun from all wappin shawengis, raidis, oistis, beiring of armour, watching, weirding, stenting taxationis, passing on assises, inquestis, justice courtis, scheriff or burrow courtis, in actiounes criminal or cival, notwithstanding of oure actis lawis, and constitutionis thair off, except in geving yairr counsell in materis appertaining to the saidis airtis : ORDAINING you, all the foresaidis provestis baillies of borrowis, sheriffis, stewartis, baillies of regalities, and otheris ministeris of justice, within the saidis boundis, and zoure deputis, to assist, fortifie, concur and defend the saidis visitouris, and their posterior, professouris of the foresaidis airtis, and put the saidis actis maid and to be maid to executioun ; and that our otheris letteris of our sessioun be granted thereupon to charge thame to that effect within twentie four houris nixt after they be chargit thairto. GEVIN under oure previe seill, at Haliruid house, the penult day of November, the zeir of God jmvc. and fourscore ninetein zeiris, and of oure regun the threttie thre zeir.”¹ Meetings and exemptions

An early act of the incorporation was to adopt the barbers in June, 1602, as “ a pendecle of Chirurgerie.” The barbers were apparently adopted as a necessity of the times, but on a distinctly inferior plane. The barber was to be “ free of his ain calling ” but not of the incorporation as a whole, and the barber was to “ medill with simple wounds allenarlie.” This position continued for about a century till, in 1703, the barbers appealed their grievances to the Town Council, and applied to be disjoined from the surgeons. In 1708, the magistrates effected this separation, the barbers taking one-fifth of the property of the incorporation, and being re-incorporated by themselves under a Letter of

¹ Duncan : “ Memorials of the Faculty of Physicians and Surgeons of Glasgow,” pp. 217 and 218.

Deaconry. It may be added that in Edinburgh the union between the surgeons and barbers came to an end in 1719.

Rules for
apprentices

Another early activity of the Faculty was the enactment of a code of rules in regard to the education of the members. In 1602, it was ordained that apprentices must be entered for seven years, although in the last two they were to receive board and fee. The apprentice was to pay five pounds for entry money, was to be examined at the end of three years, giving a dinner at the time to his examiners, and again to be examined at the end of five years and at the end of seven years. The examinations were apparently to be partly written and partly practical, and at the end of his term of apprenticeship, before passing as master, he was to pay ten pounds. Finally, if he intended to practise in Glasgow, he had to be enrolled as a burgher of the town at a further fee, and he had to pay to the Faculty a quarterly subscription, which was rigorously exacted.

Restricted
licences

Individuals seem to have been licensed in the early days to practise limited parts of the art of medicine. Thus, in 1668, Matthew Miller was licensed for the "applicatione of coulters & ventosis [*cupping*], the cuiring of simple woundes, and embalming of corpes," with the proviso that if he should be found afterwards to attain more knowledge and skill of his calling, and found qualified by the Faculty, he should be admitted thereto. Again, from the city records of 21st March, 1661, it was decided by the magistrates and Council to pay yearly to Evir M'Neill "that cutis the stone, ane hundreth markis Scotis, and he to cut all the poor for that freilie." This salary was apparently paid to him for many years, as he retired in 1688 in favour of Duncan Campbell. Evir M'Neill had been licensed by the Faculty in 1656, on the strength of ten years or thereby of experience "in cutting of the stone," to practise this department only within the bounds of the Faculty's supervision. Again, in 1654, Mr. Arch. Graham was licensed to practise "pharmacie and medicine," but was forbidden to exercise any point of "Chirurgerie."

University
graduates
licensed

In 1645, one of the provisions of the original charter was carried out by the admission to the Faculty, without examination, of Mr. Robert Mayne, the first professor of medicine in the University of Glasgow, and Mr. James Dwining, who were both doctors of medicine. Dr. Mayne's activities as a professor in the university were short-lived. He was one of the regents in the Faculty of Arts, and became professor of medicine in 1637.¹

Later
charters

In 1656, the Faculty made a closer *rapprochement* with the Town Council by obtaining in favour of the surgeons and barbers a Letter of Deaconry or Seal of Cause. In 1672, the Faculty obtained from the Scottish Parliament a ratification of this municipal charter, drawn in favour of the surgeons, apothecaries and barbers.

During the 18th century there was a regular pension list for decayed members and widows, and in 1792 a widows' fund was inaugurated with an increased fee for entry to the Faculty. This gradually became so intolerable that in 1850 an

¹ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow," p. 111.

Act of Parliament was obtained mainly for the purpose of rendering subscription to this widows' fund optional upon new entrants, and at the same time the title of Members of the Faculty was changed to that of Fellows. At this time Fellows and members of other colleges were permitted to practise within the jurisdiction of the Faculty. Under the presidentship of John Glaister, the Faculty applied to be allowed to use the word "Royal" in its title, and in 1909 this privilege was granted by King Edward VII., so that thereafter the Faculty became known as the Royal Faculty of Physicians and Surgeons of Glasgow.

Until the latter part of the 17th century the Faculty does not appear to have felt itself strong enough to extend its operations beyond the town of Glasgow, although it had been given a purview over medical practice in a much wider area. In 1673, however, examiners were appointed in Ayr and Kilmarnock to examine applicants for entrance to the Faculty.

These were the times of the Covenanting troubles, and some of the Faculty were enthusiastic Covenanters, though most of them tempered piety with prudence. In 1677, the Faculty had the misfortune to have a Treasurer, Mr. Thomas Smith, who attended conventicles, and who had been denounced and called before the Lords of Secret Council. Having some fear that the Corporation might be fined for his misdemeanours, his fellow-members summarily ejected him from office and appointed a successor *ad interim*.

On the other hand, the Faculty had much trouble with the impious barbers, who acted as "prophaners of the Sabbath by barborizing of persons yt day." This practice was found by the Faculty, in 1676, to be "contrair to the word of God, and to all lawes both humane and divyne." A resolution was therefore passed that any member of the Faculty convicted of plying his craft of barber on the Sabbath day should be fined 40 pounds Scots, and, upon refusal to pay the same, be ejected from the Faculty.¹

About this time the Faculty seems to have been extraordinarily busy in the prosecution of quacks and other unlicensed practitioners within its area, and the records are filled with cases of unqualified persons brought up before the Faculty in its judicial capacity. These were either fined or forbidden under penalty to practise further.

In 1697, the Faculty acquired a property contiguous to the Tron Church, where the members set up a hall and commenced the formation of a medical library, for up to this time they had been without a meeting-place, holding their meetings usually either in the Crafts' Hospital or Hutchesons' Hospital. In 1791, the Faculty moved its hall to the east side of St. Enoch Square, and, in 1860, sold this site to the Railway Company with advantage and moved to its present premises in St. Vincent Street.

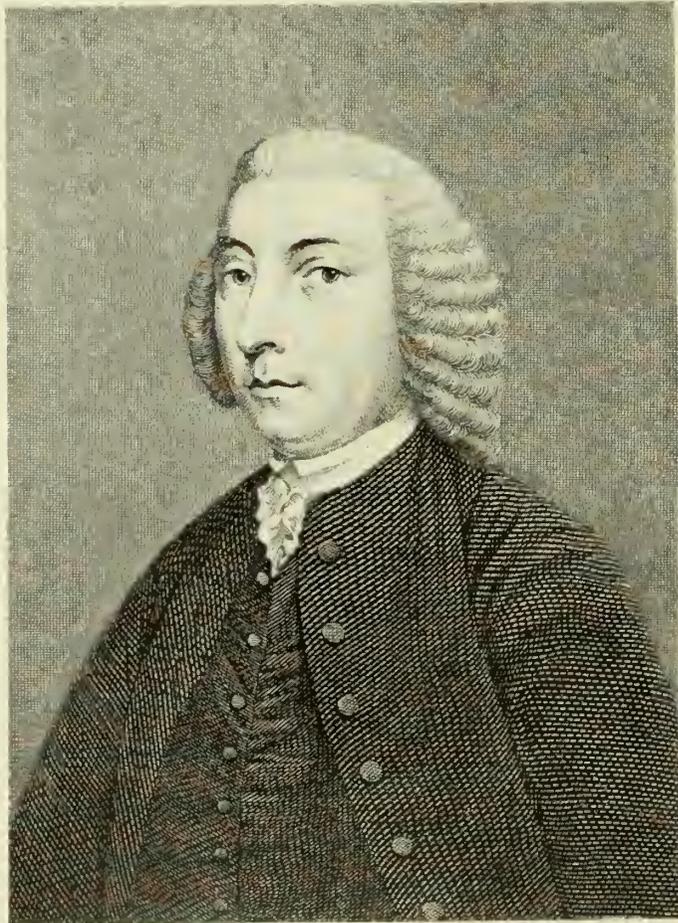
In the 18th century it appears that the term of apprenticeship for surgeons was five years, although apprenticeships of four years and three years were also recognised when this apprenticeship was supplemented by attendance on lectures

¹ Duncan : "Memorials of the Faculty of Physicians and Surgeons of Glasgow," p. 72.

at a medical school. In 1785, the Faculty established a licentiateship, which gave to country surgeons the power of practising in a limited area on payment of a reduced admission fee.

Matthew
Brisbane

Several men eminent in medicine were members of the Faculty during the 18th century. Dr. Matthew Brisbane, in the end of the 17th century, had been several times elected rector of the university, the only medical man in that



TOBIAS SMOLLETT (1721-1771)

Witchcraft

century to attain the distinction. In common, however, with the general opinion of the times, he apparently had some sympathy with the idea that witchcraft was a possible practice, for in 1696 he made a lengthy report upon a girl, Christian Shaw, daughter of the Laird of Bargarran, whom he had seen to bring hair, straw, coal, cinders and such-like "trash" out of her mouth without its being wet. The case at the present day would unhesitatingly be attributed to

hysteria and imposture, but, for the alleged crime of bewitching this wretched girl, four persons were burned at Paisley.¹

As a pioneer in surgery, much credit is due to Mr. Robert Houston, for whom a claim is made of being the first ovariologist, by reason of an operation which he performed in 1701, more than a century before the celebrated operations of Dr. Ephraim McDowell, of Kentucky.² The case concerned a woman, Margaret Millar, whom, in August, 1701, he found to have the abdomen distended to an enormous size. Being pressed by Lady Anne Houston, who took a great interest in the patient, and by the patient herself, to do what he could to relieve the condition, he, with very ineffective instruments, opened the abdomen, removed some nine quarts of gelatinous fluid and numerous cysts, and, after dressing the wound for three weeks, had the satisfaction of seeing the patient again at work, and later of recording her survival for 13 years in perfect health.

Robert
Houston

Ovariotomy

A well-known member of the Faculty, about the middle of the century, was Dr. John Gordon, to whom Tobias Smollett served an apprenticeship. The latter puts into the mouth of one of his characters, Mr. Bramble, the following appreciation of his old master, who, outside of medicine, conferred upon the city the great benefit of introducing linen manufacture there: "I was introduced to Mr. Gordon, a patriot of a truly noble spirit, who is father of the linen manufactory of that place, and was the great promoter of the city workhouse, infirmary and other works of public utility. Had he lived in ancient Rome, he would have been honoured with a statue at the public expense."

John Gordon

Tobias
Smollett

Another friend of Dr. Gordon was Dr. William Smellie, the obstetrician, also a member of the Faculty, who practised in the town of Lanark, and afterwards went to London, where he composed his celebrated "Midwifery," which was revised by Tobias Smollett. Dr. John Gordon lectured for a time in the College on anatomy, and other lecturers on this subject at various periods between 1730 and 1750, were Mr. John Paisley, Mr. John Love, Dr. Robert Hamilton and Mr. John Crawford. Other celebrated members of the Faculty were William Cullen and Joseph Black, whose lives and work are mentioned in connection with the Medical School of Edinburgh.

William
Smellie

The hostility that existed about this time between surgeon-apothecaries of the old type who had gained a knowledge of their calling through apprenticeship only, and the younger men who were now beginning to attend classes and to read books, is brought out by Tobias Smollett in the interview where Roderick Random seeks employment as assistant to Mr. Crab. To Random's statement:—

"Neither am I altogether ignorant of surgery, which I have studied with great pleasure and application.' 'O ho! you did,' says Crab. 'Gentlemen, here is a complete artist! Studied surgery! What? in books, I suppose. I shall have you disputing with me one of these days on points of my profession. You can already account for muscular motion, I warrant,

¹ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow," pp. 112 and 113.

² "Philosophical Transactions," London, 1733. Vol. XXXIII., p. 8.

and explain the mystery of the brain and nerves—ha!—You are too learned for me, d—n me. But let's hear no more of this stuff. Can you bleed and give a clyster, spread a plaister, and prepare a potion? ”

Beginning of
medical
teaching

Until the early part of the 18th century, Glasgow medicine had busied itself mainly with the improvement of medical and surgical practice, and the few attempts at teaching which have been mentioned had proved abortive. The teaching of medicine was of later introduction, as described below.

In the scheme of educational organisation proposed by Knox and the other reformers in 1560, the faculties of arts, medicine, law and theology were to be taught at St. Andrews, but at Aberdeen and Glasgow only arts, law and theology were proposed. This “Book of Discipline” was never adopted in its entirety.

Chair of
medicine
instituted
and lapses

The teaching of medicine at St. Andrews lapsed, and as regarded Glasgow, on 25th October, 1637, a meeting of the regents appointed Mr. Robert Mayne, one of the regents, to be professor of medicine in the college for the future, with a stipend of 400 merks. He had been one of the regents in the Faculty of Arts, and he apparently lectured on medicine on Fridays and other convenient occasions, although he had no other colleagues in the Medical Faculty. A visitation from the General Assembly in 1642, however, decided that the profession of medicine was “not necessar for the Colledge in all tyme comming,” but allowed Mayne, the existing professor, to hold the chair during his life. He died in 1646, and the chair lapsed. The lessening of funds from which the university suffered after the Restoration, prevented any attempt to reconstitute the chair, although the Commissioners of Visitation, meeting at Glasgow in 1664, recommended that a number of professors should be added to the teaching staff, including one of medicine.

Physic
garden

The number of students and the amount of funds available increased considerably after William of Orange came to the throne, and, in 1704, the first real beginning of the medical school was made with the setting aside of a portion of the college garden for botanical purposes, and the appointment of John Marshall, surgeon in Glasgow, to be keeper of this physic garden and to instruct the students in botany. The university almost at once began to examine candidates for the degree of M.D., although the university was not itself teaching them. A chair of medicine was again founded in 1713, and a chair of anatomy was established in 1720, although the teaching of this subject was for a considerable time combined with that of botany. A sum of £40 a year was assigned by Queen Anne from the unexpended part of a grant to the university, made by King William, as salary for the professor of medicine.

Chair of
botany and
anatomy

A regulation was made to the effect that the professor of medicine, in common with several other professors, was required to teach his subject whenever five students applied to him, and it was stipulated that he should “give not under four lessons every week.” The professor of botany and anatomy was similarly required to teach botany from 15th May to 1st July every year if five students offered, and anatomy as soon as ten students offered. If ten students did not offer by

1st November in any year, he was in any case to give a weekly prelection on anatomy at the university till 15th May.

The first professor of medicine, appointed in 1714 under this new arrangement, was Dr. John Johnstoun, who had graduated M.D. at Utrecht five years previously, and the first professor of anatomy and botany was Dr. Thomas Brisbane, son of Dr. Matthew Brisbane. It is doubtful, however, if Johnstoun was ever called upon to give his course of lectures, so that both he and Brisbane should probably be regarded as merely titular professors.¹

Chair of
medicine
revived

The beginnings of the medical school in Glasgow University were thus closely parallel to those in Edinburgh, though they followed some thirty years after the developments in the capital city. In both cities the organisation of medicine began under the medical corporations, and its teaching was assumed only at a comparatively late date by the universities.

In 1732, the fee for the degree of M.D. was £11 1s. 6d., of which £8 was given to the professor of medicine.²

In 1744, Dr. William Cullen, who had moved from Hamilton into Glasgow, began to deliver a course of lectures on medicine outside the university, and in 1746, by an arrangement with Professor Johnstoun, he began to lecture in the university. He persuaded the university also to fit up a chemical laboratory in 1747, and began to teach chemistry with the help of Mr. John Carrick, assistant to Dr. Hamilton, now professor of anatomy. In 1748, Cullen also began to teach *materia medica* and botany. In 1750, Dr. Johnstoun resigned the chair of medicine, and Cullen was appointed his successor in January, 1751.

William
Cullen
begins to
lecture

Cullen was one of the first persons in Britain to treat chemistry as a scientific subject apart from its connection with pharmacy. He also stimulated his pupil, Joseph Black, to take up the subject from the same aspect. Black went to Edinburgh as a student in 1751, and here he accomplished the brilliant feat of isolating "fixed air" (carbonic acid gas), which inaugurated a new era in chemistry. In 1755, Cullen left Glasgow to take up the chair of chemistry at Edinburgh; next year Dr. Robert Hamilton, the professor of anatomy, was transferred to the chair of medicine, and Dr. Joseph Black, who had now graduated at Edinburgh, succeeded Hamilton as professor of anatomy for one year. Dr. Hamilton having died in 1757, Dr. Joseph Black succeeded to the chair of medicine and chemistry, but, in 1766, he again resigned this to succeed Cullen in the chair of chemistry at Edinburgh, when the latter was transferred to the chair of medicine in that university. For the lives of Cullen and Black, see Chapter XIV.

Chemistry

To Cullen and Black the foundation of the Glasgow School of Medicine may reasonably be credited. Black was succeeded in 1766 in the chair of medicine and chemistry by Dr. Alexander Stevenson. After Black left Glasgow,

¹ Thomson: "Life of Cullen," Edinburgh, 1859, Vol. I., p. 24.

² Couatts: "History of the University of Glasgow," p. 232.



JOHN ROBISON (1739-1805)
(Original by Sir Henry Raeburn in the University of Edinburgh)



ROBERT CLEGHORN (1755-1821)
(Original by Sir Henry Raeburn in the Royal Mental Hospital, Glasgow)

Dr. John Robison was appointed a lecturer in chemistry, and Dr. William Irvine a lecturer in materia medica. It was unfortunate for the developing school at Glasgow that several of these men of ability were transferred to other spheres of activity almost as soon as they had made their mark.¹

The subject of chemistry at Glasgow in the 18th century was one of considerable importance, because of the eminence to which several of its teachers attained. A lectureship on chemistry was instituted in 1746, largely owing to the exertions of Dr. Cullen, who was appointed the first lecturer on this subject (1747) and later held the post along with the chair of medicine. The early professors were thus called professors of medicine and chemistry, just as at Edinburgh there were, in the early days, professors of chemistry and medicine and professors of medicine and botany. Cullen was an enthusiastic chemist with great dexterity in experimenting, and with the sanction of the university he set up a chemical laboratory, where he conducted experiments. The Free Library at Paisley possesses two small volumes of MS. notes of Dr. Cullen's lectures on chemistry, which indicate the scope of his teaching.

When Joseph Black, in 1756, succeeded Cullen as lecturer in chemistry, he entered with great earnestness upon the investigations and experiments which resulted in the discovery of latent heat, and he read an account of his discovery before the Literary Society of Glasgow College in 1762. On Black's representation, the university, in 1763, provided a new laboratory and lecture room in the neighbourhood of the physic garden. Over £500 was spent upon the laboratory, which was a large sum for those days.

Joseph
Black

When Black went to Edinburgh in 1766, he was succeeded as lecturer on chemistry by Dr. John Robison (1739-1805), who had been one of his students. Robison was better known later as professor of natural philosophy in the University of Edinburgh, but in Glasgow he is noted for having, in 1768, involved himself in a fight in the quadrangle with David Woodburn, a senior student. The result was that Robison was fined and Woodburn expelled from the university, although this did not affect the latter greatly, for he subsequently had an adventurous and distinguished career as a colonel of artillery in the service of the East India Company. Robison was succeeded, in 1769, as lecturer on chemistry by William Irvine, M.D., another pupil of Black, who previously had been lecturer on materia medica.

John
Robison

On his death, in 1787, Irvine was succeeded in the lectureships, both on chemistry and on materia medica, by Thomas Charles Hope, M.D., and on Hope's resignation to take up the chair of medicine in 1791, the vacancy in chemistry was filled by the appointment of Dr. Robert Cleghorn (1755-1821), a physician in large practice who had already been lecturer on materia medica since 1788. As he had no leisure nor turn for investigation, there was no practical class, and the laboratory was abandoned. He appears, however, to have been a clear and popular lecturer on the subject of chemistry. He was an Edinburgh graduate, who had started practice in Glasgow, and he was one of the first two physicians to the Royal

Robert
Cleghorn

¹ Duncan: "Memorials of the Faculty of Physicians and Surgeons of Glasgow," pp. 129-132.

Infirmary of Glasgow. He continued to lecture on chemistry till a professorship was instituted in 1818.

He was also the first physician to the Glasgow Royal Mental Hospital for a period of five years from 1814 to 1819. He practised first at Spreull's Land, off the Trongate, and had a country retreat at Rutherglen, where he built Shawfield House and laid out a large herb garden. Here he died in 1821.

It is told that a crowd gathered one night round his house in College Street, and angry mutterings of vengeance were heard by those within. When the cook went to the door to enquire as to the cause of the disturbance, she was straightway accused of being in the act of "roasting a bairn for the doctor's supper." Some of the mob had to be taken inside before they could be convinced that it was only a sucking pig that was revolving on the spit before the fire.

Alexander
Stevenson

In the chair of medicine, now separated from chemistry, Dr. Alexander Stevenson was appointed in 1766 to succeed Black. Stevenson was the son of a well-known physician of Edinburgh, and graduated M.D. at Glasgow in 1749. Settling in Glasgow in 1756, he amassed a considerable practice, and threw himself with earnestness into the movement which resulted in the erection of the Royal Infirmary. He did not, however, live to see the hospital built, and falling into delicate health, he handed over the duties of the chair to his nephew, Dr. Thomas Charles Hope, and died in 1791.

In 1789, Thomas Charles Hope, son of John Hope, the professor of medicine and botany at Edinburgh, and a nephew of Professor Stevenson, became assistant to the latter in the professorship of medicine and succeeded him in 1791.¹ While Hope was in Glasgow, he published his important research dealing with the maximum density of water, but in 1795 he was transferred to Edinburgh to succeed Joseph Black in the chair of chemistry. He is thus regarded as an Edinburgh professor (*see* Chapter XIX). In the Glasgow chair of medicine he was succeeded, at the beginning of 1796, by Dr. Robert Freer, an Edinburgh physician.

The number of students both in arts and medicine was increasing towards the end of the 18th century, thus necessitating provision for the teaching of new subjects. A lecturer on materia medica was accordingly appointed in 1766, and a lecturer on midwifery in 1790. The opening of the Royal Infirmary in 1794 also gave opportunity for instruction in clinical medicine and clinical surgery by members of its staff.

Midwifery

The commencement of teaching in midwifery was somewhat involved. Thomas Hamilton, a brother of Robert Hamilton, at first professor of anatomy, and now of medicine, was appointed, in 1757, to succeed Black in the chair of anatomy and botany. Thomas Hamilton had been in partnership with John Moore, surgeon, in Glasgow, and he later made application to the Faculty of Physicians and Surgeons for apparatus for teaching midwifery. A sum of £80 was granted for this purpose in 1768, and Hamilton engaged to give a regular course

¹ Coutts: "History of the University of Glasgow," p. 496.

of midwifery every session. James Muir, a surgeon in Glasgow, had already, in 1759, announced a course of lectures for the instruction of women in midwifery. Thomas Hamilton was followed by his son, William Hamilton, in the chair of anatomy and botany, but it is not certain whether the latter prosecuted the subject of midwifery.

After William Hamilton's death in 1790, James Towers, surgeon, who had been his partner, represented that he had made a special study of midwifery in the Royal Infirmary at Edinburgh and in London, and asked to be allowed to lecture upon this subject in the University of Glasgow. Towers was appointed lecturer on midwifery from year to year till 1815, when he became professor of this subject. In 1792, he announced that he had opened a lying-in ward for the more effective instruction of students of midwifery, and, applying for some remuneration, the university granted him an allowance of £25 a year. In 1794, his salary was raised to £45.¹

The first lecturer on materia medica was William Irvine, M.D. (1743-1787).
 Materia medica
 He was an excellent chemist and had assisted Black in his experiments relating to latent heat, for which he expected to be made Black's successor, but was passed over in favour of Dr. John Robison. His friends being anxious to secure his services to the university in some capacity, a lectureship on materia medica was instituted, and he was appointed to this post in 1766. He was greatly interested in chemistry, working on much the same lines as Black had done, and, in 1769, when Robison took up an appointment in Russia, Irvine was appointed to succeed him as lecturer on chemistry. He continued to deliver two courses—one on chemistry and chemical pharmacy and the other on dietetics, materia medica and pharmacy.² He also lectured on botany, to relieve Professor Thomas Hamilton who, though holding the chair of anatomy and botany, was unable to teach the latter subject.

When Irvine died he was succeeded as lecturer, both on chemistry and on materia medica, by Thomas Charles Hope, but as he later confined himself to chemistry, materia medica was taught from 1788 by Dr. Robert Cleghorn, a physician in large practice. He in turn, devoting himself to chemistry, was succeeded in 1791 as lecturer on materia medica, by Dr. Richard Millar (d.—1833). Millar continued as lecturer for a long period of 40 years until 1831, when the Crown founded a chair of materia medica and made him professor of the subject. The number of students attending the materia medica class in Millar's later years was between 80 and 90. Two years later, however, advancing years compelled Millar to place his resignation in the hands of the Home Secretary, who filled up the post by appointing Dr. John Couper to the professorship. Millar had had a salary of £70 from the university, together with fees paid by students, but it appears that when the Crown established the professorship, no emolument was attached to the post.

¹ Coutts: "History of the University of Glasgow," p. 498, *et seq.*

² Murray: "Memories of the Old College of Glasgow," Glasgow, 1927, p. 188.

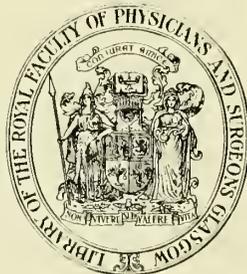
When Couper died, in 1855, he was succeeded by Dr. John Alexander Easton (1807–1865), who had taught *materia medica* in Anderson's College for 15 years before being made professor of the same subject in the university.

Medical
faculty at
end of
century

The medical school of Glasgow University at the end of the 18th century was constituted as follows. There was a professor of medicine (Robert Freer), who taught both the practice and theory of medicine, including physiology and pathology. The professor of anatomy (James Jeffray), taught surgery in addition to anatomy, and was nominally professor of botany. Chemistry, *materia medica*, midwifery and botany were taught by lecturers, the incumbents being respectively Robert Cleghorn, Richard Millar, James Towers and Thomas Brown.

Clinical
teaching

About 200 students attended a certain number of these classes, but few of these students graduated, most of them taking two or three classes as a supplement to the training which they received from the practitioners to whom they were attached as apprentices. The infirmary had been opened in 1794, and was available for classes in clinical medicine and clinical surgery by the end of the century. The first student who attended a clinical course there appears to have been Robert Agnew, who graduated M.D. in May, 1796. Notwithstanding these somewhat meagre arrangements for teaching, many celebrated medical men had, even in the earlier years of the century, been alumni of this university, including such men as Cullen and Black, Hamilton and Gordon, William Hunter and Smellie.



SEAL

ROYAL FACULTY OF PHYSICIANS AND SURGEONS
GLASGOW

CHAPTER XVI

THE EARLY MEDICAL SCHOOL AT ABERDEEN AND KING'S COLLEGE

ALTHOUGH the University of Edinburgh was later in its inception than any of the other three, medicine developed earlier at Edinburgh and was more particularly cultivated than in any of the other towns. The University of St. Andrews was founded in the beginning of the 15th century, Glasgow was founded in the middle, and Aberdeen at its close, while Edinburgh University was not founded until a century later, in 1582. As we have seen, however, the Guild of Surgeons and Barbers at Edinburgh was a well-established teaching body by 1505.

The craft of the "Barbours" is mentioned casually several times in the early minutes of the Aberdeen Council. Aberdeen received from William the Lion, in the 12th century, a charter authorising the burgesses to trade, and several important monasteries were founded within its bounds, to one of which, the Trinity Friars, King William gave up his own palace in the Green. The gradual acquisition of medical knowledge by the barbers and their formation into a semi-religious craft would, therefore, be easy. A Council minute of 10th October, 1494, refers to payment of twenty shillings for the "barbouris obeytis,"¹ and on 30th January, 1505, the craft is mentioned as taking part in a pageant.²

The place of the barbers among the other crafts was a humble one, as appears from their position in the great procession of Corpus Christi day in 1531, when the barbers walked next to the fleshers, who came lowest in precedence, the hammermen taking the chief position among the 17 crafts mentioned. In the pageant the barbers represented "Saint Lowrance and his Tormentouris."³ The Guild of Barbers was incorporated by the Town Council in 1537.⁴ Military surgery must have been an important part of the craft, for Aberdeen

The barbers
of Aberdeen



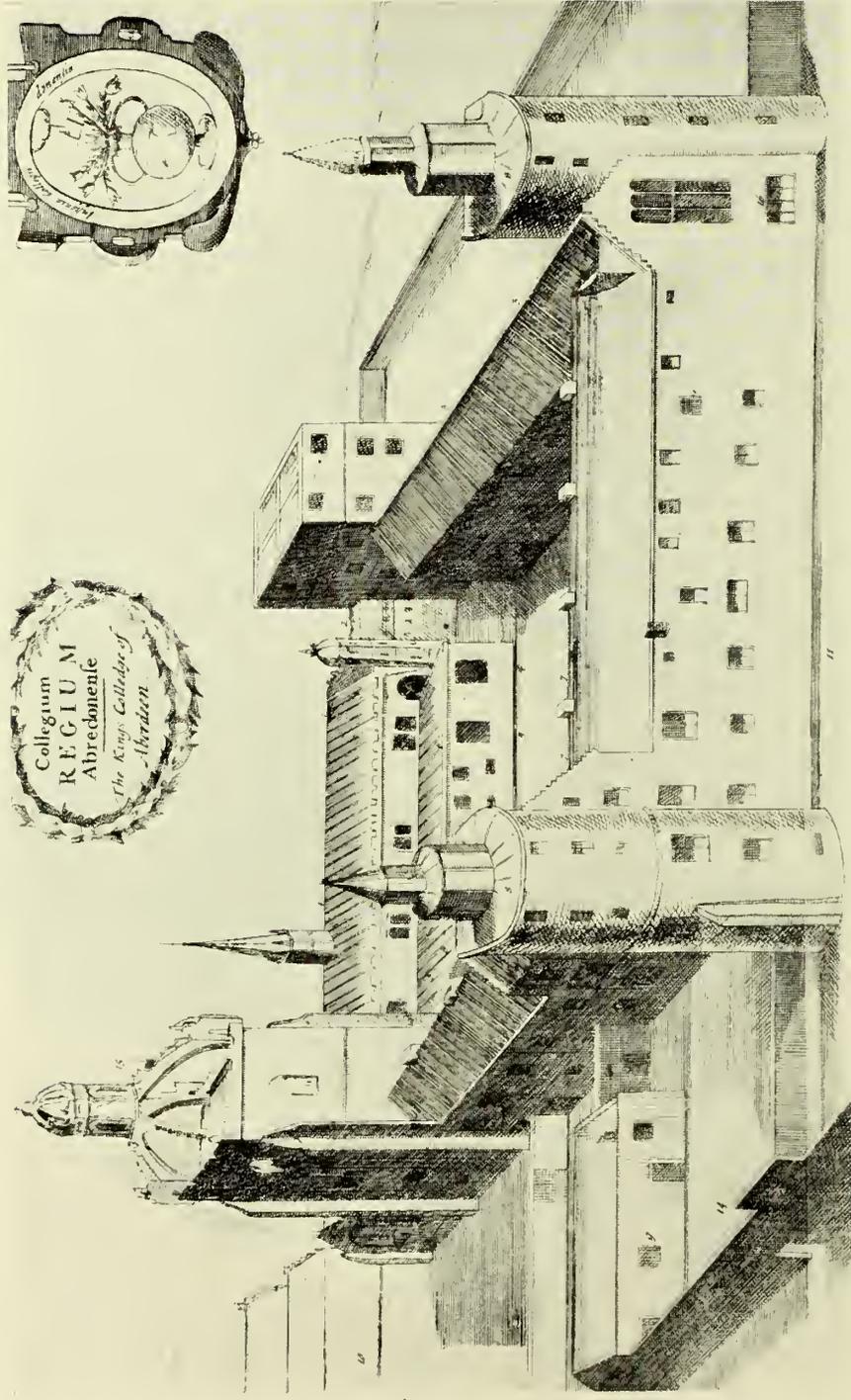
SEAL OF KING'S COLLEGE
ABERDEEN

¹ "Extracts from the Council Register of the Burgh of Aberdeen, 1398-1570," Aberdeen, 1844, p. 55.

² *Op. cit.*, p. 432.

³ *Op. cit.*, p. 451.

⁴ Parker: "Early History of Surgery in Great Britain," London, 1920, p. 93.



KING'S COLLEGE, ABERDEEN, ABOUT 1661
(From Gordon of Rahway's plan of Aberdeen)

was an active centre, both during the War of Independence against the English and during the raids by caterans from the north-west, which culminated in the repulse of the Highland hosts at Harlaw in 1411.

There had been a Rector of the Schools at Aberdeen as early as 1262, and numerous subsequent references to the Grammar School of Aberdeen are found. In 1494, Bishop Elphinstone of Aberdeen obtained permission for the establishment of a "studium generale," or university, in his episcopal See. The pope thus bestowed the usual privileges of a university, which were to teach, study and confer degrees in theology, canon and civil law, medicine and arts.

Foundation
of King's
College or
University

Bishop Elphinstone collected a collegiate body and obtained its endowment by his own means and influence, while the young King James IV. made a small donation and consented to the annexation of the hospital of St. Germain's to assist the revenues. The bishop's first efforts were to restore the Cathedral and to collect an establishment of 42 clerics and scholars. The erection of the College of St. Mary of the Nativity, later named King's College, after King James IV., followed in 1500.¹ The first Principal was Hector Boece, a native of Forfarshire, who had been a teacher of philosophy in the College Montaigu at Paris. King's College appears to have been completed in the year 1505.

With regard to the size of the university, some information is got from a letter written by Randolph, the English Ambassador, who, in 1562, accompanied Queen Mary on a northern progress. He wrote to Cecil from Aberdeen: "The Quene in her progresse is now come as far as Olde Aberdine, the Bishop's seat, and whear also the universitie is, or at the least one colledge with fifteen or sixteen scollers."²

From the beginning, one of the teachers at King's College was a "Mediciner." Thus it was secured that medicine should form an intrinsic part in the teaching of the university, and this was the first university recognition of the subject in Great Britain. Cambridge followed in 1540, Oxford in 1546, and Glasgow in 1637, but Edinburgh did not follow this example until 1685, when three professors of medicine were appointed in the Town's College.

The
mediciner

The creation of a chair in medicine must not be misinterpreted, and the whole relations subsisting between a university and medicine in the 16th and 17th centuries will be better understood if the duties of the mediciner are grasped. The study of medicine was, as has been mentioned in connection with the monasteries, regarded as an important branch of scholarship. At this time it was usual for well-educated men to include a knowledge of physic among their literary and philosophical studies, even when there was no intention of adopting medicine as a profession. In outlying districts of the country where the common people were poor and where roads were bad or non-existent, it was difficult for one who practised medicine as his only means of sustenance to exist at all, or, in any case, to visit his patients.

¹ "Fasti Aberdonenses, 1494-1854," Spalding Club Pub., Aberdeen, 1854, preface.

² Letter to Cecil, 31st August, 1562, quoted in Chalmers' "Life of Ruddiman," p. 7 (note).

The persons, therefore, who rendered help in time of sickness in country districts, both before and after the Reformation, were the local clergymen or land-owners, who had attended the course at a university and knew something about the medical writings. The students who attended the three or four years required to complete the "studium generale," like the ancient philosophers, took all knowledge for their province. At Edinburgh, as appears from a report by the Commissioners of 1648 to the General Assembly, the anatomy of the human body was described in the third year's course of arts, while at St. Andrews, in the last year, the students learned some compend of anatomy, and at Aberdeen some instruction in anatomy and physic was given, apparently at the discretion of the mediciner.

Among the early mediciners Robert Gray and Gilbert Skeen were also regents in the faculty of arts, while they all conducted practice among the citizens of Aberdeen. The successive mediciners varied in the extent of medicine which they taught to their students, some of them regarding the post as purely titular.

Nature of
a degree in
medicine

This attitude on the part of the universities towards the teaching of medicine was reflected in the matter of degrees, when these came to be conferred. The aim was to produce not a practitioner but a scholar, not craftsmanship but erudition. Instruction in medicine, while it might be slight, was associated with a course in arts and philosophy. The person who received a degree was *doctus in medicina*—learned in medicine—but not necessarily a skilled practitioner of the craft. At the university, the same professor often taught medicine with oriental languages or with mathematics. In the early days, Greek, Latin and Arabic were the languages in which medical knowledge was stored, and from the 17th century onwards the systems of medicine which men strove to establish had a distinct physical or mathematical trend.



DIPLOMA OF M. D. DEGREE

Conferred on Dr. Archibald Pitcairne by King's College, Aberdeen, signed by Patrick Urquhart, M.D., and dated 7th August, 1699

(Preserved in the National Museum of Antiquities of Scotland)

When a degree in medicine was conferred, it was given not because of examinations which the student had successfully passed, but as a recognition by the university of general and professional attainments, however acquired. It did not convey the idea of a licence to practise, and it was frequently conferred as an honorary distinction. Thus, the first name mentioned as having received the degree of M.D. from King's College is that of Dr. Parkin, who was graduated by William Gordon, the mediciner at King's College, in 1630. The same mediciner afterwards graduated, in 1637, William Broad, who wrote a thesis *Bonum Factum de Hydrope*, this being the earliest extant Scottish medical graduation thesis, of which a copy is preserved in Glasgow University.¹ Another early graduate was Dr. Joannes Glover, Londonensis, who graduated on 15th May, 1654, and who was already a B.A. of Harvard (1650).²

Examples of the manner in which the M.D. degree was given for purely honorary reasons and *in absentia* are afforded by two minutes of the Principall and Maisters. "31st May, 1712:—Mr. Patrick Blair, apothecary in Cupar, who had been recommended by the bishop of Aberdeen and severall eminent physicians in Angus, was graduated Doctor of Medicine." "10th November, 1719, this day, the masters signed a diploma, *gratis*, in favours of Mr. Alexander Anderson, minister at Duffus, as Doctor of Medicine, he being a gentleman of approven skill of physick, as also his father having been once regent, and his grandfather Mr. John Rou, once principall in this university."³

Early
graduates
at Aberdeen



BONVM FACTVM.
DE HYDROPE
THESES,
Quas,
D. T. O. M. F.

Sub Rectoratu Magnifici & Clarissimi Viri,
D. ARTHURI JOHNSTONI, *Medici Regii.*

Ex decreto & autoritate facultatis Medicæ, in
celeberrima Academia Aberdonensi Regia.

Pro consequendis in sacra Medicina doctoralibus Privilegiis.

PRESIDE PATRICIO DVNÆO, M. D.
& Facultatis Medicæ Decano.

Publicè discutendas proponit GVLIELMVS
BROAD, Berwicensis.

Ad primam diem, Iulii, 1637, Loco confecto.

BONA VERBA DICITE.



ABERDONIÆ,

¶ Imprimebat *Edm. ar. d. Rabanus*,
Anno ut supra dictum.



TITLE PAGE OF M.D. THESIS
by William Broad, 1637: the earliest extant Scottish medical
graduation thesis
(Original in Glasgow University Library)

¹ Johnstone and Robertson: "Bibliographica Aberdonensis," Aberdeen, 1929, p. 277.

² "Studies in History and Development of the University of Aberdeen," Edit. P. J. Anderson, p. 308.

³ "Fasti Aberdonenses of King's College, 1494-1854," Spalding Club, 1854, pp. 442-444.

In Marischal College, the first recorded doctor is Richard Stoughton, in 1713; two others, Joseph Cam and John Spink, graduated in 1714, and were already licentiates of the Archbishopric of Canterbury, while for many years those who graduated appear to have been men who had already been for a considerable time in practice or who had published works on medicine and were, in any case, men of recognised distinction.¹ The same principle applies to the other universities.

At other
universities

At Edinburgh the first M.D. was David Cockburn, A.M., who graduated on 14th May, 1705, and there were twenty-one graduates in medicine prior to 1726, the year in which a medical faculty was established in this university.² In Glasgow University the first M.D. degree appears to have been conferred in 1703, and degrees were even conferred on applicants *in absentia*. At St. Andrews University, Dr. John Arbuthnot was the first recorded M.D. He graduated in 1696 and underwent examination. He had studied at Marischal College, Aberdeen, where he graduated in arts in 1681.³ In later life he practised in London, being physician to Queen Anne, and the familiar friend of Pope and Swift. St. Andrews University for long continued the custom of conferring degrees only after examination, but without any residence or instruction at the university.



JOHN ARBUTHNOT (1667-1735)
(Original in the Scottish National Portrait Gallery)

¹ "Records of Marischal College," Vol. II, p. 111.

² "Edinburgh Medical Graduates," Edinburgh, 1867.

³ "Records of Marischal College," Vol. II, p. 253.

It was not until after the foundation of a Medical Faculty at Edinburgh, in 1726, that the idea came into being in Scotland of conferring the M.D. degree on young men as the consummation of three years' medical study, and to which they were entitled after successful examination. Modern idea of degree

The following is the list of mediciners at King's College, with their dates of appointment :— List of mediciners

Before	1522	James Cumyne
	1522	Robert Gray
	1556	Gilbert Skeen
	1575	Chair vacant
	1619	Dr. Patrick Dun
	1632	Dr. William Gordon
	1640	Chair vacant
	1649	Dr. Andrew Moore
	1672	Dr. Patrick Urquhart
	1725	Dr. James Gregory (elder)
	1732	Dr. James Gregory (younger)
	1755	Dr. John Gregory
	1764	Sir Alexander Gordon of Lismore
	1782	Dr. William Chalmers
	1793	Sir Alexander Burnett Bannerman
	1813	Dr. James Bannerman
	1839	Dr. William Gregory
	1844	Dr. Andrew Fyfe

Master James Cumyne had been brought to Aberdeen, about the year 1503, to act as medical officer of the burgh. The magistrates, on 20th October, 1503, agreed to pay him a retaining fee of 10 merks yearly, and later one half of the net fishings at the fords of Dee, on condition that he should "mak personale residence within the said burgh, and cum and vesy tham that beis seik, and schow them his medicin, one thar expensis." It was also stipulated that his "wyf, houshalde, and barnis" should be brought to reside in the burgh. He was evidently, from his title of "Master," a university graduate.¹ James Cumyne

Cumyne seems also to have received from the Royal Exchequer a grant mentioned in the year 1502, and continued in subsequent years. It was paid through the Bishop of Aberdeen and charged against the Burgh of Cullen, though the name of the recipient is never stated. "To a doctor graduated in the Faculty of Medicine, reading in the University at Aberdeen, newly founded in the city of Old Aberdeen, receiving annually twelve pounds six shillings from the concession of the King" (James IV.).²

Robert Gray was presented to the post of mediciner by Bishop Gavin Dunbar on 10th March, 1522. He was described as "salubris medicine bachalarius," subscribed the confirmation of 1531, and was present at the visitation of the Robert Gray

¹ "Extracts from the Council Register of the Burgh of Aberdeen," p. 431.

² "Exchequer Rolls of Scotland," Vol. XII., p. 106.

university in 1549.¹ He appears to have been a pupil of William Manderston, who later taught medicine at St. Andrews, and who taught Robert Gray the art of medicine.

A book, the "De Triplici Vita" of Marsilius Ficinus, printed about 1496, which apparently belonged to Robert Gray, is preserved in the library of King's College. On two leaves inserted at the end of the book there are several manuscript entries, apparently in the mediciner's handwriting. These include a statement of various lands in Banffshire from which his income was derived, together with the amounts contributed by each; there is also a page filled with notes of medical prescriptions in his handwriting, among which camomile and petroselinum are indicated for the treatment of calculus, as by Linacre for Erasmus.²

Gilbert Skeen

Gilbert Skeen, or Skeyne, was born about the year 1522, and after the usual education at the Grammar School and King's College, he took a Master of Arts degree and applied himself to the study of medicine, being appointed mediciner to King's College in 1556. While occupying this position, he published "Ane Breve Descriptioun of the Pest," printed at Edinburgh in 1568. Having married, in 1569, Agnes Lawson, the widow of a burges of Edinburgh, he transferred to this city in 1575 and commenced the practice of medicine in a house at Niddrie Wynd, Edinburgh. Here he rose to considerable celebrity, and on 16th June, 1581, he was appointed physician to His Majesty James VI., receiving a "gift of pension" of "twa hundreth pundis money of our realme."³ Another small treatise, entitled "Ane Brief Descriptioun of the Qualiteis and Effectis of the Well of the Woman Hill besyde Abirdene, Anno Do. 1580," is also attributed to him.⁴ He died in 1599.

His book on
plague

Gilbert Skeen lived through the worst outbreak of the plague in Edinburgh, but his brief description of the pest, though printed in 1568 at Edinburgh, was written before he left Aberdeen. It is interesting, also, as one of the few examples of books published by Scottish doctors or surgeons in the 16th century, and, like the "Chyrurgerie" of Maister Peter Lowe, it is written in the vernacular. The vernacular language was also employed about this time by Ambroise Paré, the great Elizabethan surgeons, and Richard Wiseman. This practice gave to such works, unlike those written in Latin, a greater usefulness though a narrower circulation at their time, but conferred on them a more enduring fame. The little treatise on the plague runs to about 10,000 words. The following are Skeen's views as to the cause of plague:—

Causes of
plague

"The cause of pest in ane privat Citie is stinkand corruptioun and filth, quhilkis occupis the commune streittis and gaittis, greit reik of colis (*smoke of coals*) without vinde to dispache the sam, corruptioun of Herbis, sic as Caill and growand Treis, Moist heuie sauer (*smell*) of Lynt, Hemp, & Ledder steipit in Vater. Ane priuat house infectis ather of stinkand closettis, or corrupte Carioun thairin, or neir by, or gif the inhabitantis hes

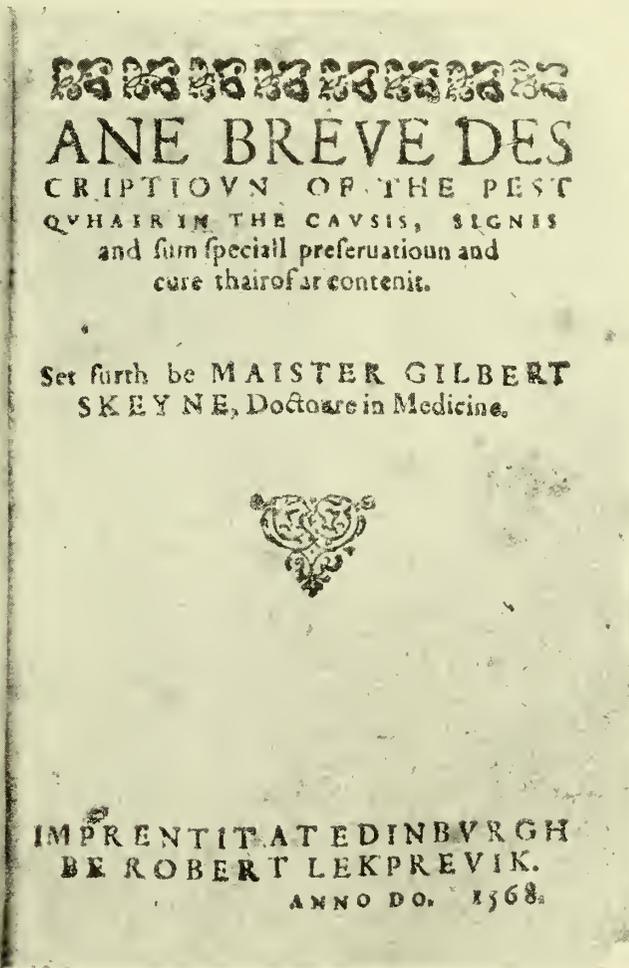
¹ Anderson: "King's College Officers and Graduates," Aberdeen, 1893, p. 35.

² List of 15th Century Books in the University Library of Aberdeen, Edinburgh Bibliographical Society, 1925.

³ "Tracts by Dr. Gilbert Skeyne, Medicinar to His Majesty," Bannatync Club Reprint, Edinburgh, 1860, pp. vii-ix.

⁴ See reprint in facsimile, Edmond and Spark, Aberdeen, 1884.

inuisseit vther infectit Rowmis, or drinking corrupte Vatter, eating of Fruttis, or vder meictis quhilkis ar corrupte, as we see dalie the pure mair subiecte to sic calamitie, nor the potent, quha ar constrynit be pouertie to eit ewill and corrupte meittis, and diseisis contractit heirop ar callit Pandemiall."¹



TITLE PAGE OF GILBERT SKEEN'S "BREVE DESCRIPTION OF THE PEST"
The first medical book printed in Scotland
(Original in National Library, Edinburgh)

The diagnostic signs of plague are given by him as follows, and he also has a long section upon the signs of death:—

"Thair is mony notis quhilkis schauis ane man infectit be pest. First gif the Its signs
exteriour partis of the bodie be caulde, and the interiour partis of the bodie vehement
hait. As gif the hoill bodie be heauie with oft scharpe punctiounis, stinkand sueiting

¹ "Tracts by Dr. Gilbert Skeyne," reprinted by the Bannatyne Club, Edinburgh, 1860, pp. 6 and 7.

tyritnes of bodie, ganting of mowthle, detestable brathe with greit difficultie, at sumtyme vehement feuer rather on nycht nor day. Greit doloure of heid with heaunes, sollicitude & sadnes of mynd: greit displeour with sowning (*swooning*), quhairfter followis haistelic deth. As greit appetit and propensnes to sleip albeit on day, raing and walking occupeis the last. Cruell inspectioun of the ene, quhilkis apperis of sindre colouris, maist variant dolour of the stomak inlak of appetite, vehement doloure of heart, with greit attractioun of Air: intolerable thirst, frequent vomitting of diuers colouris or greit appetit by daylie accustum to Vomit, without effecte: Bitternes of mowth, and toung with blaiknit colour thairof & greit drouth: frequent puls small & profund quhais vrine for the maist part is turbide thik & stinkand or first vaterie colourit thairefter of bilious colour, last confusit and turbide, or at the beginning is zallow inclyning to greine (callit citrine collour) and confusit, thairefter becummis reid without contentis. Albeit sum of thir properteis may be sene in haill mennis vater, quhairby mony ar deceauit abydand Helth of the patient, quhan sic vater is maist manifest sing of deth, because the haill venome & cause coniunit thairwith, leauand the naturall partis occupeis the hart and nobillest interioure partis of the body. Last of all and maiste certane, gif with constant feuer, by the earis, vnder the oxstaris, or by the secrete membres maist frequentlie apperis apostumis (*abscesses*) callit Bubones, without ony other manifest cause, or gif the charbunkil apperis hastelic in ony other part, quhilk it dois, in the begining, testifeis strenthe of nature helth, and the laitter sic thingis appeir, and apperand, it is the mair deidlie. At sumtym in ane criticall day mony accidentis apperis principalie vomiteing, spitting of blude, with sweit, flux of womb, bylis, scabe with dyuers other symptomis, maist heaue and detestable."¹

The chief part of the little book is devoted to the means by which those exposed to plague may avoid infection, and to the treatment which Skeen has found useful in cases of the plague:—

"Euacuatioun is perfitit be blude drawing, befor or efter that ony persone hes bene in suspect place, in speciall of the Vaine callit Mediana of the richt arme takand in quantitie as strenth, temperament, consuetude, aige, and tyme may suffir. Euerilk ane remouand thame self fra cuntrey, town, and Air, infectit or suspect and quha may not do the samyn, or mowit be Christiane Cheritie will not, man be studious to liue in fre Air. . . ."²

"Fyre made of fir or akin tymmer ar maist lowable, makand suffumigatioun thairwith of the tre of Aloes, Calamus callit Aromaticall. . . ."

"Perfumand also al claithis in priuat lugeingis with the reik of sandal, rose vater or sic lyke other materialis. And as ony of the simplis befor written seruis, siclyk compositionis may be made of the sam, in forme of trociseis, thik pulderis, candillis or pomis odoratiue in this maneir. Rec. storac, calamint. vnc. duas, rasuræ ligni Iuniperj vnc. sex. masticis vnc. vnam, benio. vnc. duas, paretur, puluis. . . ."³

"Four scrupulis of the pil. of Ruffus ar maist profitable, quhilkis beand tane oft befor (sayis Ruffus) preseruis maist surlic fra the pest, & ar callit be some, pilulæ communes, be vtheris pilulæ Arabicæ, vel pilulæ contra pestem, quhilkis are dyuerse vays dispensit, as followis. Rec. aloes Hepatici partes duas, ammoniaci electissimi partes duas, myrrhæ electæ partem vnam, cum vino odorato formentur. . . ."⁴

"Twichand meittis, flesche is maist proper quhilk generis louable humoris, & is of facill digestioun, Sic as Pertrik, Phasiane, Lauerok (*lark*), Hen, Turture, Kid, Mottoun, Cuning (*rabbit*), Veill, & siclyk otheris, vsand thairwith Garyophillis (*cloves*), and Cannell pulderit. . . ."⁵

¹ "Tracts by Dr. Gilbert Skeyne," pp. 12-14.

² Op. cit., p. 18.

³ Op. cit., p. 19.

⁴ Op. cit., p. 23.

⁵ Op. cit., p. 25.

The part devoted to the cure contains a great many prescriptions for ointments, mixtures, plasters, etc., which are almost all derived from vegetable sources and are mainly of the nature of volatile oils.

"Of fructis, feggis, bytter almondis, dry rasingis, sowl apill or peir, orange, citroun, or limown, caperis, soure prunis, or cheryis, with daylie use of vinagir or vergeus with all sortis of meittis: drinkand cleir quhyt odoratiue Vyne, temperat with vater, veschand face, mouthe, & handis, at morning with vyne temperat with rois vater, drawand at neis the decoctioun, of the leauis of laure, onyand the eiris with oile de spica, hauand in mouthe the seid of citroun, abstenand fra sleip on day lycht, Ire, crying, Venus playis, as fra maist dangerous enemeis."¹

With regard to the treatment of the buboes, he recommends early opening by a "chirurgical hand," after which various maturative materials or suppuratives may be applied, for which he gives several prescriptions, again consisting of aromatic substances. Gangrene, which he says is wont to appear, also demands the hand of the surgeon, and is to be treated by maturatives and washed with turpentine spirit and other substances which we should call antiseptics. A curative plaster is finally to be applied.

After Gilbert Skeen left Aberdeen, in 1575, the post of mediciner remained unoccupied for a period of 44 years. This time, however, is noteworthy for the appearance of several Aberdonians who were distinguished at home and abroad for their skill in the art of medicine. Lapse
of post

Duncan Liddel (1561-1613) was a celebrated native and practitioner of Aberdeen. After being educated at the Grammar School and graduating M.A. at King's College, he crossed to the Continent, where he studied at the universities of Frankfurt a. O., Breslau and Rostock. From 1591 to 1603 he occupied the position of professor of mathematics at the university of Helmstedt, and during this time, betaking himself to medicine, he graduated M.D. at Helmstedt in 1596. From 1596 to 1607 he was also professor of medicine, and during this time became Dean of the Faculty of Philosophy and Pro-Rector of the university. Duncan
Liddel

He apparently amassed a considerable fortune, and in 1607 he returned to Aberdeen, almost immediately afterwards publishing a treatise, the "Ars Medica," at Hamburg. This work consisted of five books, and was greatly appreciated in its time, going through several subsequent editions. In 1610, he published a treatise, "De Febribus," at Hamburg, and a small work entitled "Ars Conservandi Sanitatem," which is still well worthy of perusal, was published posthumously in 1651 by Dr. Patrick Dun. He died in 1613 at the age of 52, and in 1622, the Aberdeen Town Council erected a memorial brass to him in the Kirk of St. Nicholas. He bequeathed his books and instruments to Marischal College, as well as a sum of money which was later used to endow bursaries for medical students.² His works

A distinguished rector of King's College, in 1637 (though not a mediciner), was Arthur Johnston (1587-1641), of Caskieben (now called Keith Hall, near Arthur
Johnston

¹ "Tracts by Dr. Gilbert Skeyne," p. 26.

² *Proceedings of the Society of Antiquaries of Scotland*, Vol. XI., p. 450.

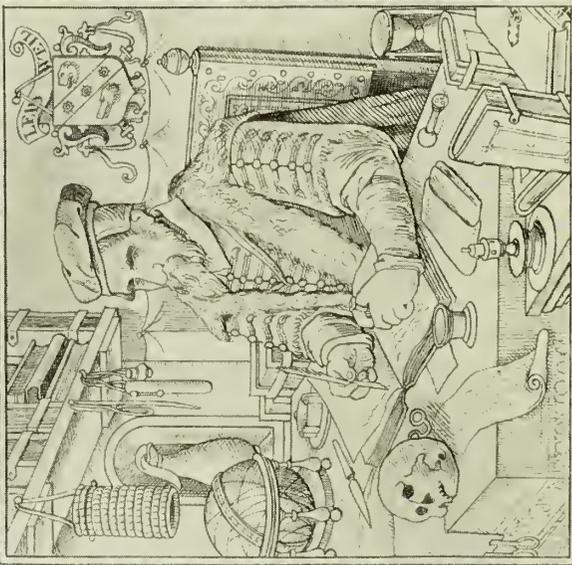


ARTHUR JOHNSTON, M. D. (1587-1641)



HIC QUIESCIT D. DYN CANANVS LIDDEVS D.O.

SUB SPE BEATAE RESYRRECTIONIS



PERNE MEMORIE
 DIDYNCAN LIDDELL DOCT
 MEDICORVM VIRVS NASCEN
 TVM EXCEPIT RECONDITA IN
 MEDICINA ET OMNIBVS PHILOS
 PHIAE AC MATHEMATICIS PARTIBVS
 VERVA NATVM EXCOLAVIT
 HERRAVIT SUPRA BOVALES EX

M. D. C. XIII. ET ATISSV E LI

DUNCAN LIDDEL (1561-1613)
 (From memorial brass in St. Nicholas Church, Aberdeen)

Inverurie), who had taken the M.D. of Padua in 1610. He became physician-in-ordinary to Charles I., and his talent as a writer of Latin verse was pronounced by some authorities to be superior to that of George Buchanan. He had practised medicine in France, and his famous translation of the Psalms was published at Aberdeen in 1637, although his duties as court physician kept him mainly in England.

Numerous other Aberdonians of this period were celebrated as medical practitioners outside Aberdeen, such as Robert Straloch, who taught medicine at Paris; Gilbert Jack (1578-1628), who taught at Leyden and published the "*Institutiones Medicæ*"; and Robert Morison (1620-1683), physician to Charles II., and professor of botany in Oxford.¹

Alexander Reid (1580-1641), physician and surgeon, studied at Aberdeen and afterwards in France. He practised in different parts of England, and eventually settled in London, where he rose to fame and wealth, becoming physician to Charles I. Between the years 1632 and 1634, he lectured on Tuesdays on anatomy and surgery in the Barber-Surgeons' Hall, afterwards publishing his lectures in book form. He possessed an interesting library of medical books, which he bequeathed to Marischal College. These included a copy of Harvey's "*Exercitatio Anatomica*," "*The Animadversions*" of Dr. James Primrose upon this, and a number of contemporary works dealing with alchemy and chemistry.²

Alexander
Reid

An early Aberdonian who gained distinction as an alchemist was William Davidson, M.D. He was born in Aberdeenshire in 1593, being a descendant of several noble families, including those of Huntly and Argyll. He took to the study of medicine, and after receiving the degree of Doctor of Medicine, he settled in Paris about the year 1620. Here he maintained friendly relations with both the authorities in the University of Paris and those of King's College, for in 1634, he drew up an account of the government of the former, which he transmitted to John Forbes of Corse, the rector of King's College, with the object of improvement in the University of Aberdeen.

William
Davidson

This information must have been of considerable use in the re-organisation which was taking place at Aberdeen under the visitation from the General Assembly, for the chancellor and visitors entered a minute:—

"to wryt another letter to the said Doctour W. Davidsoune, thanking him for his love and paines in the erand forsaid; and giving him commissioun and powar, in name of this Universitie of Aberdeine, for to caus subscribe ane autentik copie of the evidentis and registers of the Universitie of Paris concerning their conservatorie jurisdiction privileges and immunities and to bestow theropoun tua hundredth franks or therby, if it may not be had cheaper."

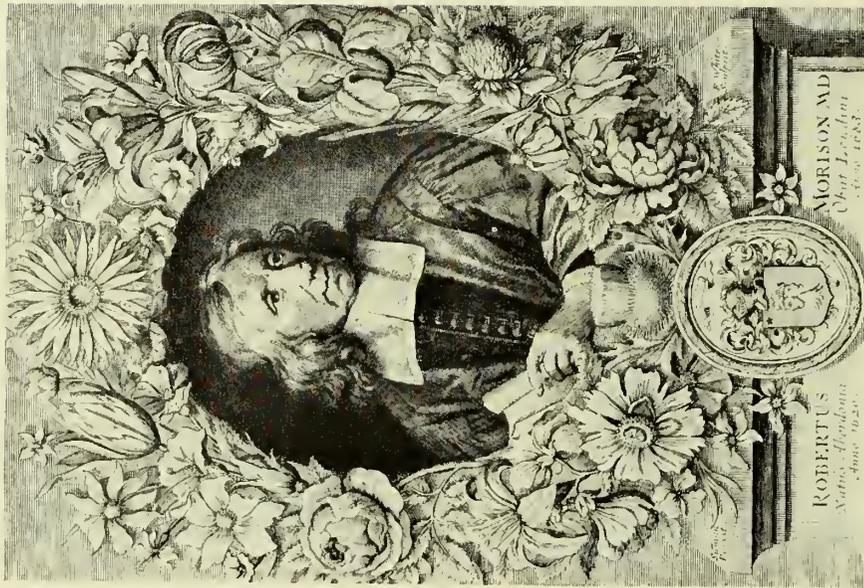
In Paris he applied himself with great success to the study of chemistry and taught this science publicly, being appointed the first professor in the chair of

¹ "*Studies in the History of the University of Aberdeen*," Edit. by P. J. Anderson; Aberdeen, 1906, pp. 305 and 306.

² Menzies: "*Alexander Reid*," *Transactions of Bibliographical Society*, June, 1931, p. 46.



WILLIAM DAVIDSON (1593-1670)



ROBERT MORISON, M.D. (1620-1683)

chemistry founded in the Jardin des Plantes. He was also director of the garden and councillor and physician to the King of France. His first work, "Philosophia Pyrotechnica," published in 1635, and later editions, was a learned and elaborate work illustrating the power, nature and use of speculative and practical chemistry. His next work (1641), "Oblatio salis sive Gallia lege salis condita," was dedicated to Cardinal Richelieu. After this he left France for a time and became physician and chemist to King Casimir of Poland. During his stay in Poland he published his chief work, "Commentationum in sublimis Philosophi . . . Prodrumus," printed at the Hague in 1660. In this book he makes numerous references to contemporary Scottish affairs, and among other things states with some exaggeration that Scots professors of medicine in the past had been invested with such honour by the kings of Scotland that they enjoyed a title equal to that of earls.

The most remarkable of his works, entitled "Plico-Mastix ; seu Plicæ e numero morborum Apospasma," was published in 1668, and in it he denies the existence of the disease called Plica Polonica, of which the remarkable symptoms may be attributed to various other maladies. In 1669, Louis XIV. ratified to

Davidson and his descendants the privileges and exemptions enjoyed by gentlemen of France, and Davidson appears to have died shortly after this date. He treated chemistry from the modern point of view rather than from that of the earlier alchemists, and he was a contemporary of Glauber, who is frequently called the first of the chemists.¹



PATRICK DUN (died 1652)

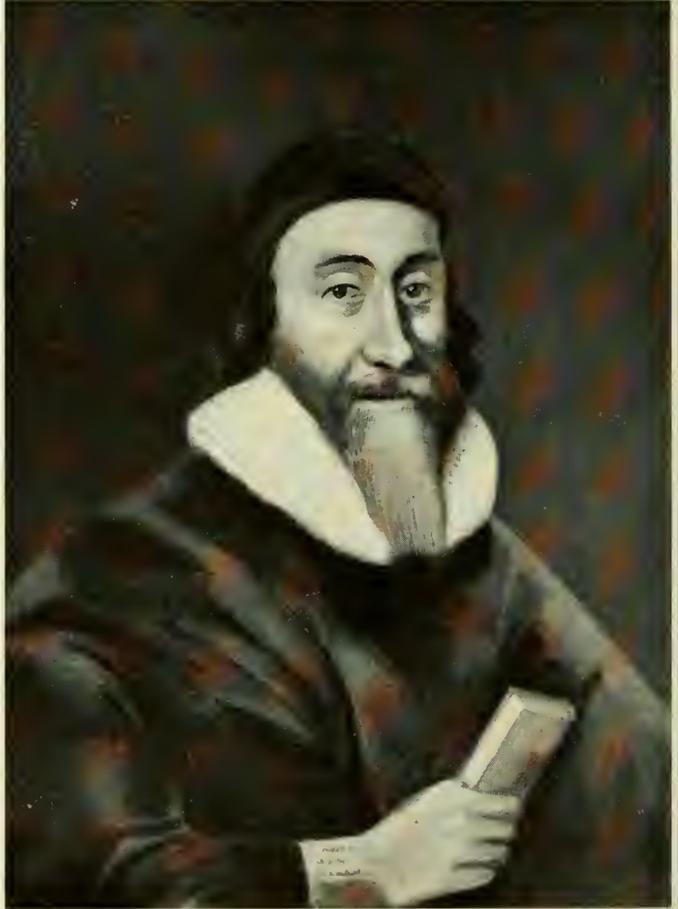
(Original picture, by Jamesone, in the Grammar School, Aberdeen)

¹ *Proceedings of the Society of Antiquaries of Scotland*, Vol. X., p. 265.

Mediciner-
ship
revived

Patrick
Dun

The duties of the mediciner at King's College had lapsed after Gilbert Skeen went to Edinburgh in 1575, but in 1619 the Commission of Visitation appointed by King James I., nominated for this post Dr. Patrick Dun, apparently without a salary.¹ He was the son of Andrew Dun, a burghess of Aberdeen, and had graduated M.D. at Basel. He forms an early link between the two colleges, because in Marischal College he held successively the posts of regent (1610), professor of logic (1610), rector (1619) and principal (1621). He was a benefactor both of the Grammar School and of Marischal College, to which he gave 2000 merks for repair of damage caused by a fire in 1639. He was the author of a medical treatise, "Themata Medica de Dolore Colico," published at Basel in 1607, and he edited Liddel's "Ars Conservandi Sanitatem," published in 1651,² after the latter's death. He held the post of mediciner at King's College till 1632.



WILLIAM GORDON (1593-1640)
(Original in King's College, Aberdeen)

William
Gordon

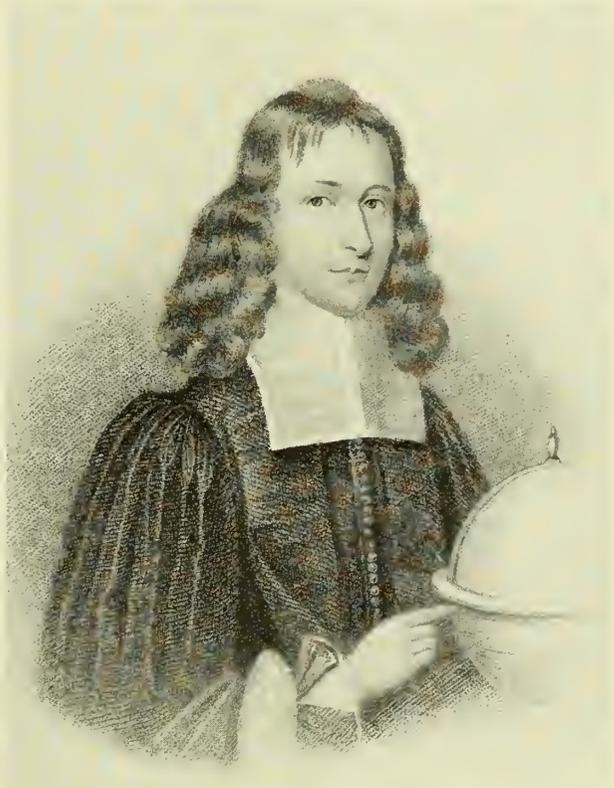
William Gordon, M.D. of Padua, was elected mediciner, with a salary, upon the demission of Patrick Dun in 1632. He was a pious son of King's College, for in the year 1633, he rebuilt the college crown after it had been destroyed in a gale.³ In 1636 he resided "within the Spittel, with his wyff (Jean Sandilands), thrie bairnes, and four servants" (probably apprentices). He appears to have taken a serious view of his duties, for in the year 1636, he petitioned the Lords of the

¹ Anderson: "King's College Officers and Graduates," p. 35.

² "Records of Marischal College," New Spalding Club, 1898, Vol. 11, p. 28, and Vol. 1, p. 231.

³ Anderson: "King's College Officers and Graduates," p. 35.

Privy Council, that seeing he was appointed to teach medicine and anatomy, and had exercised his students sufficiently for two years past in the dissection of beasts, he desired the Lords to give him opportunities for the practical teaching of human anatomy. He mentions in his petition that it was usual for the magistrates of cities in which universities were situated to deliver two bodies of men and two of women in each year to be publicly anatomised. The Privy Council met his request by directing the Sheriffs, Provost and Baillies of Aberdeen and Banff to deliver to the suppliant two bodies of executed malefactors, especially of rebels or outlaws, or failing that, bodies of the poorer sort, who had few friends or acquaintances to take exception.¹ Some of his successors in the post, however, were less thorough in their desire to teach, and some of them gave up lecturing on medicine altogether. He died in 1640.



JAMES GREGORY, M.A. (ABERDEEN) (1638-1675)
Professor of Mathematics in St. Andrews and Edinburgh, and the first
professor of this family

The post of mediciner was again vacant from 1640 to 1649, when Dr. Andrew Moore was appointed. He published a small book concerning the well at Peterhead in the year 1636, while still a student of medicine.² This

well afterwards enjoyed considerable celebrity throughout the 18th century, being much frequented by the Duchess of Gordon and other persons of fashion. So much had Peterhead become a resort for the aristocracy in the north of Scotland that it was chosen as the landing place of James, the Old Pretender, in 1715.

Andrew
Moore

Andrew Moore graduated M.A. at Edinburgh in 1631, and studied medicine at King's College. He was enrolled an honorary burgess of Aberdeen in 1635,

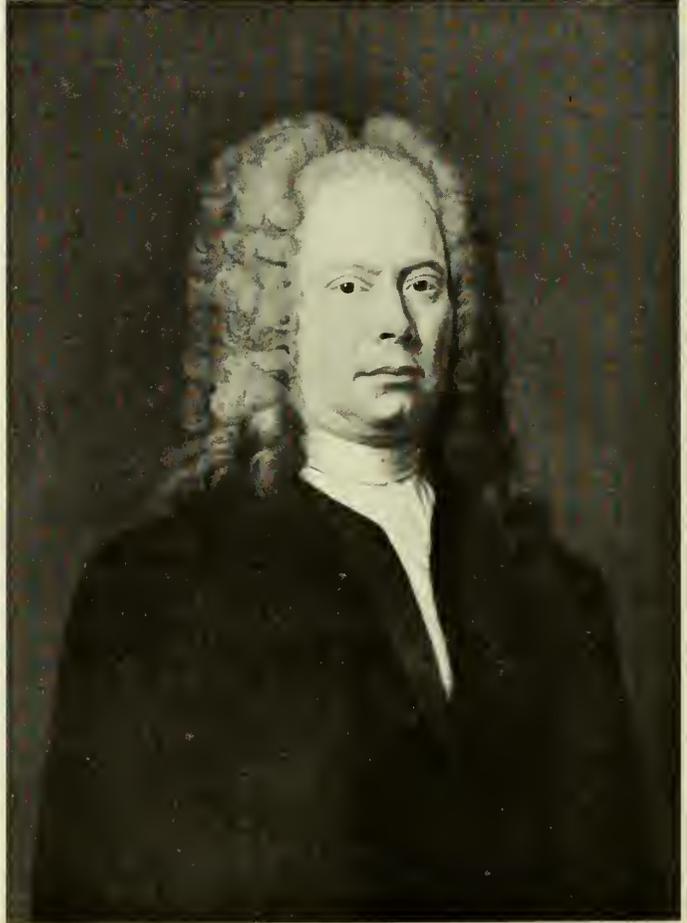
¹ "Miscellany of the Spalding Club," Aberdeen, 1842, Vol. II., p. 73.

² Mackaile: "Moffat Well," Edinburgh, 1664, p. 136.

and at some time, probably about 1639, received the M.D. degree from King's College. He resided in Old Aberdeen, where he was a Baillie in 1668, and he was apparently a person of considerable influence, because in 1660 he obtained a contribution through the court of Charles II. for repair of the College buildings. He died in 1672.¹

Patrick
Urquhart

Dr. Patrick Urquhart was presented to the post of mediciner by Patrick, Bishop of Aberdeen, in 1672. His mother was a daughter of the Earl of Airly, and he was reputed to be "a man of learning and parts." He held the position of mediciner for 53 years, but does not appear to have lectured during the earlier part of his tenure of office. He began public lessons in medicine in 1686. He signed the diploma of M.D. conferred on Dr. Archibald Pitcairne of Edinburgh, in 1699, was apparently a successful physician in Aberdeen, and practised the art of embalming.² He held the post till his death in 1725, at the age of 83.



JAMES GREGORY "THE ELDER," MEDICINER
(Original portrait in King's College, Aberdeen)

James
Gregory
(elder)

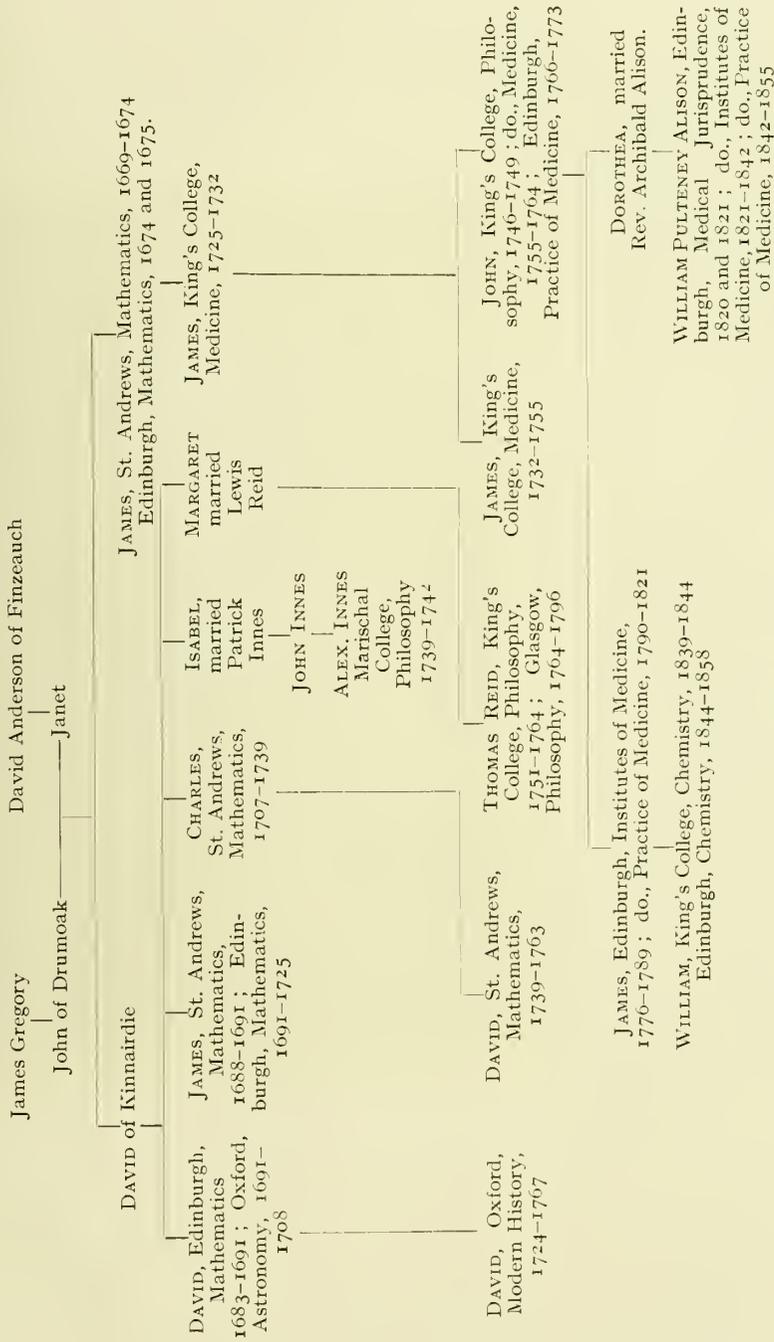
After the demise of Urquhart, the post of mediciner at King's College was held by three members of the family of Gregory in succession, over a period of 30 years. This family produced no fewer than 16 professors in Aberdeen, Edinburgh and other universities. Of these, the earliest to attain professorial rank was James Gregory, inventor of the reflecting telescope, who was professor of

¹ Johnstone and Robertson: "Bibliographica Aberdonensis," Aberdeen, 1929, p. 276.

² Bulloch: "History of the University of Aberdeen," London, 1895, p. 157.

FAMILY OF GREGORY

Showing the number of Professors, with their Universities, Chairs and dates of tenure



As compiled by Anderson for "Fasti Academicæ Mariscallanæ Abendonensis," Vol. I., p. 203.

James
Gregory
(*younger*)

mathematics in St. Andrews and afterwards in Edinburgh, and who married a daughter of George Jamesone, the Scottish Vandyke. His son, James Gregory, known as "the elder," became mediciner at King's College in 1725. This James Gregory married Ann Chalmers, daughter of Mr. George Chalmers, the Principal, and was a practising physician in the town of Aberdeen. He retired in 1732, in favour of his son, James Gregory, known as "the younger," who was also a practising physician in the town of Aberdeen, and regarded as the chief physician in the city from about 1733. He died in 1755, and was succeeded by his younger brother, John Gregory.

John Gregory (1724-1773) was one of the early physicians of the Aberdeen Infirmary. He had begun life by working in the chemist's shop of his brother, and thus obtained a thorough knowledge of drugs. He also studied at Leyden before finally settling down in Aberdeen. Thinking Aberdeen too small for the exercise of his abilities, he tried medical practice in London for 12 months, and eventually settled in Edinburgh, where he was elected to the chair of medicine in 1766, in succession to Robert Whytt. He in turn was succeeded in the Edinburgh chair by the illustrious William Cullen.

John
Gregory

John Gregory had begun his connection with King's College in 1746, as a regent teaching natural philosophy, and after his return from London, when he succeeded his brother as mediciner in 1755, he appears to have been animated by a great desire to found a medical school in Aberdeen. With this end in view, he opened classes in Aberdeen in conjunction with Dr. David Skene, who was to teach midwifery, and they "persisted in giving lectures for two sessions, but they were attended by



JOHN GREGORY (1724-1773)

scarce any students of Medicine."¹ The erection of a chemical laboratory and a dissecting-room was also contemplated "as soon as the funds of the College will permit," and the Senatus issued an appeal to their alumni in different parts of the world to contribute proper furniture for such apartments. The scheme, however, ended with the transfer of Gregory to Edinburgh in 1766.

The part of John Gregory's career spent in Aberdeen is better known than that in Edinburgh, because, in the latter place, his memory is overshadowed by that of his more distinguished son, James Gregory, who succeeded Cullen as professor of medicine in 1790.

The Gregorys were of the same family as the MacGregors, and at the time of the Jacobite Rebellion in 1745, Rob Roy, who was hiding in Aberdeenshire, paid an uninvited visit to his cousin, the mediciner of King's College. Seeing young James Gregory, then a sturdy child, he declared he would take James with him to the Highlands and "make a man of him." The respectable mediciner of King's College was horrified at the idea, and was much relieved when, as he was walking one day with Rob Roy in the Castlegate, a troop of soldiers appeared from the barracks. "If those lads are stirring, I had better be off," said the cateran, and disappeared up a neighbouring close and so from Aberdeen, leaving James Gregory to become ultimately a celebrated Edinburgh professor.²

Cousin to
Rob Roy

Dr. John Gregory, in his early days, had studied at Leyden with a little group of Scottish students, which also included the Rev. Alexander Carlyle, later of Inveresk, who, in his autobiography, gives an account of this university, the favourite resort for Scottish students of the time.³ Carlyle describes John Gregory, when tried by the ardent spirits of Edinburgh, as being adjudged "cold, selfish and cunning," and pretending to "professional arts to get into business." This, however, he denies, and, having had him as family physician at a later period, he found Gregory "friendly, affectionate and generous."⁴

Character

John Gregory published "The Elements of the Practice of Physic," but is better known as the author of "Lectures on the Duties and Qualifications of a Physician," published in 1772. This was a series of six lectures delivered to his students and intended as a guide to recently qualified practitioners for their conduct in practice. Although somewhat diffuse, after the manner of writings of the 18th century generally, it is still well worth reading.⁵ The following quotation, which is the last paragraph of the book, gives a general idea of the whole:—

Works

"I hope I have advanced no opinions in these Lectures that tend to lessen the dignity of a profession which has always been considered as most honourable and important. But, I apprehend, this dignity is not to be supported by a narrow, selfish, corporation-spirit; by self-importance; a formality in dress and manners; or by an affectation of mystery. The

¹ Bulloch: "History of the University of Aberdeen," London, 1895, p. 159.

² Rodger: "Aberdeen Doctors," 1893, p. 75. This story is also told by Sir Walter Scott in his introduction to "Rob Roy."

³ "Autobiography of the Rev. Alexander Carlyle," Edinburgh, 1860.

⁴ Carlyle: *Op. cit.*, pp. 178 and 179.

⁵ John Gregory: "Lectures on the Duties and Qualifications of a Physician," London, 1772.

true dignity of physic is to be maintained by the superior learning and abilities of those who profess it, by the liberal manners of gentlemen, and by that openness and candour, which disdain all artifice, which invite to a free enquiry, and thus boldly bid defiance to all that illiberal ridicule and abuse to which medicine has been so much and so long exposed."

Gregory's works in four volumes were published at Edinburgh in 1778, after his death.

James Beattie, the poetical professor of moral philosophy, refers in "The Minstrel" as follows to the death of Gregory:—

" Ah, now for comfort whither shall I go ?
 No more thy soothing voice my anguish cheers ;
 Thy placid eyes with smiles no longer glow,
 My hopes to cherish, and allay my fears.
 'Tis meet that I should mourn :—flow forth
 afresh my tears." ¹

After John Gregory left Aberdeen, the duties of the mediciner at King's College appear to have been carried out with little energy.

Sir
 Alexander
 Gordon

Sir Alexander Gordon of Lismore, who had been assistant to Dr. John Gregory from 1764, became mediciner in 1766, when Gregory was appointed to Edinburgh. He had been a friend of Dr. Samuel Johnson when practising in London about the year 1750, and he entertained Johnson and Boswell on their visit to Aberdeen during the celebrated tour through Scotland in 1773. "Such unexpected renewals of acquaintance," said Dr. Johnson, "may be numbered among the most pleasing incidents of life." Dr. Johnson received with kindness his old friend Sir Alexander who, as Boswell states, was "a gentleman of good family, Lismore, but who had not the estate. The King's College here made him Professor of Medicine, which affords him a decent subsistence."

Meeting with
 Dr. Samuel
 Johnson

Boswell then goes on to give an instance of the comparative sagacity of Aberdeen professors:—

"He (Sir Alexander Gordon) told us that the value of the stockings exported from Aberdeen was, in peace, a hundred thousand pounds; and amounted in time of war, to one hundred and seventy thousand pounds. Dr. Johnson asked: What made the difference? Here we had a proof of the comparative sagacity of the two professors. Sir Alexander answered: 'Because there is more occasion for them in war.' Professor Thomas Gordon answered: 'Because the Germans, who are our great rivals in the manufacture of stockings, are otherwise employed in time of war.' Johnson: 'Sir, you have given a very good solution.'"²

¹ Beattie: "Works of the English Poets," London, 1810, Vol. XVIII., p. 582.

² Boswell: "The Journal of a Tour to the Hebrides," London, Third Edition, 1786, p. 69.

The two travellers dined with Sir Alexander Gordon and met the Provost (Mr. Jopp), Professor Ross (Oriental Languages), Professor Dunbar (one of the Regents) and Professor Thomas Gordon (Latin). After dinner there came in Professor Gerard (Divinity), Professor Leslie (Greek) and Professor McLeod (Sub-Principal). The dinner, however, appears to have been a dreary function, for Boswell adds :—

“We had little or no conversation in the morning; now we were but barren. The professors seemed afraid to speak. . . . We sauntered after dinner in Sir Alexander’s garden, and saw his little grotto, which is hung with pieces of poetry written in a fair hand. It was agreeable to observe the contentment and kindness of this quiet, benevolent man.”

Dr. Johnson, who had been viewing the town and colleges, and had had little opportunity for exercising his conversational powers in the forenoon, harangued the company in his best style upon the writings of Warburton, verses of Locke, the medicine of Sydenham and the dubious authenticity of Macpherson’s poem on “Fingal.” He was evidently oppressed by the taciturnity of the professors, for he confided afterwards to Boswell “how little we had either heard or said at Aberdeen: That the Aberdonians had not started a single *mawkin* (the Scottish word for hare) for us to pursue.” Dr. Johnson was also disgusted because he had been unable to obtain a definite statement as to the cost of education at King’s College.

Dr. William Chalmers, who succeeded Sir Alexander Gordon in 1782, during his tenure of office as mediciner made a half-hearted attempt to bring the office back to life. On 4th February, 1782, Dr. Chalmers announced, in the *Aberdeen Journal*, that he would commence a medical academy for teaching medicine, midwifery and (in summer) botany; after his appointment as mediciner at King’s College, however, nothing more was heard of this project. In 1787, he set an examination paper for the degree of M.D., which had hitherto been granted to candidates on the recommendation of doctors of reputation.¹

William
Chalmers

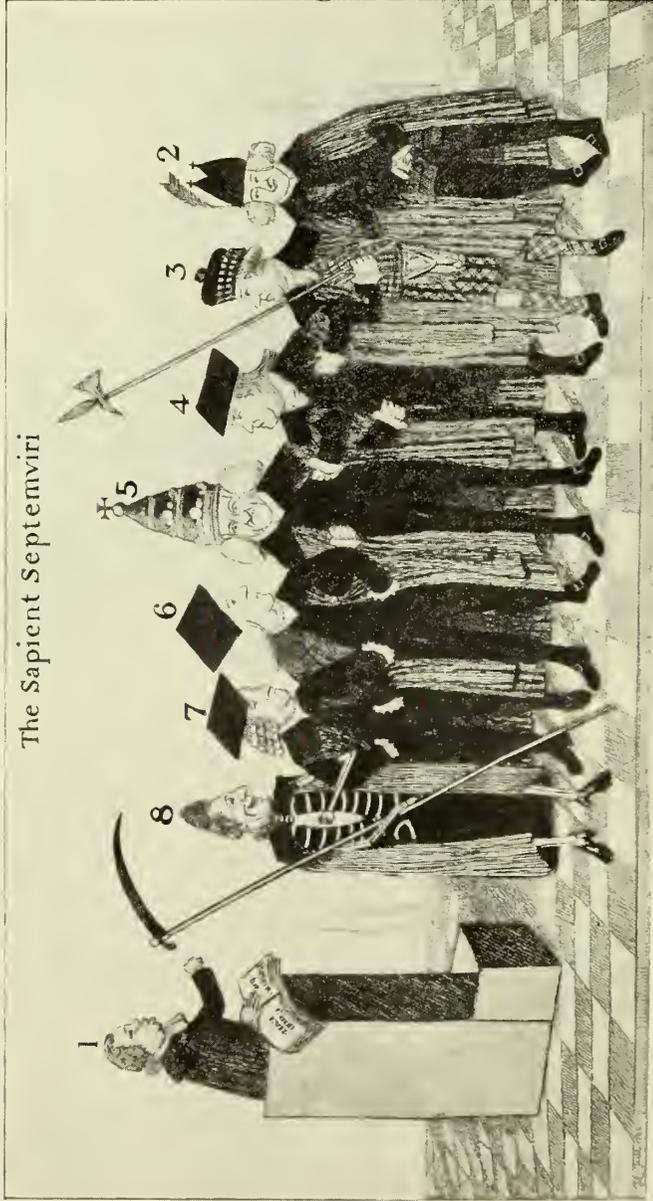
This is the first examination paper set for the M.D. degree in Aberdeen, and is interesting as showing the subjects which were engaging medical attention at the period. (For the Brunonian Doctrine, see page 315). The examination paper runs as follows :—

- “ (1) What are the principal peculiarities in the structure of the fœtus, and are there any impediments to seeing or hearing at birth. What are they? Examination of 1787
- (2) In how far may Acrimony be considered as existing in the system, and what are its effects?
- (3) In what proportion of our present diseases may Debility be supposed to take place, and how may it be effectually obviated?
- (4) What are the advantages resulting from the Brunonian doctrine? ”²

¹ Bulloch: “History of the University of Aberdeen,” London, 1895, p. 165.

² Rait: “The Universities of Aberdeen,” Aberdeen, 1895, p. 206.

The Sapient Septemviri



Caricature of the seven opponents, in 1786, to the scheme for union of King's and Marischal Colleges. The figures represent:—

1. Rev. Stene Ogilvy
2. Professor Gerard
3. Professor Roderick McLeod
4. Professor John Leslie
5. Principal Chalmers
6. Professor Gordon
7. Professor Thom
8. William Chalmers (mediciner)

(From Kay's "Portraits".)

1 The Beauty of Holings. Looking

2 Had you not sold your Patronages, First Minister might have been annexed to my Divine Chair of Verity & Taste.

3 Annually for 15 years and upwards have I beat up, even to the Ultima Thule have I recruited our University.

4 I have rendered Vernacular the Greek Language from Aberdeen to Alforden.

5 Agriculture is the Noblest of Sciences, mind your Glocks, the Emperor of China is a Farmer.

6 Has not the Effulgence of my Cruenitance been a light unto your feet, and a lamp unto your Paths.

7 Colledge property, Patronages are unalienable, so says the Law, the Noble Patron has rewarded most justly your Rapacity

8 Dignus Male and Female in Medicine and Midwifery, sold here for ready money

Some years later Chalmers had made arrangements to give a course of weekly lectures on anatomy and physiology, but it is not certain whether this project was ever carried out. He was a vigorous opponent of the idea to unite King's and Marischal Colleges, and thus provide a single school of medicine.

An attempt to erect a medical school was again made in 1786, the leading spirit in this movement being William Ogilvie, professor of Latin at King's College, who argued in favour of a union of King's and Marischal Colleges for this purpose. The general idea had been propounded in 1770, that Latin, Rhetoric, Moral Philosophy and Logic, Oriental Languages, Divinity and Law should be taught at King's College; while Greek, Mathematics, Natural Philosophy, Natural History, Anatomy and Medicine should be assigned to Marischal College.¹

Attempt to
erect a
medical
school

Unfortunately, even in 1786, the authorities could not agree on details, and the scheme collapsed for the time, although it was strongly recommended by various Town Councils in the north of Scotland and supported by the physicians and lawyers of Aberdeen, who were impressed with the necessity of carrying out this scheme for the benefit of the two professions. A pamphleteering warfare was maintained for some years between Professor Ogilvie and the other supporters of union on the one hand, and those who wished to maintain the independence and rivalry of the two colleges on the other hand. The correspondence in the local newspapers was sometimes humorously carried on, the colleges being designated respectively by the *noms de plume* of "Margaret Marshall" and "Janet Elphinstone."

Dr. Alexander Bannerman was appointed mediciner in 1793, succeeded to the baronetcy as Sir Alexander in 1796, and in the following year was conjoined with his son James in the post.² Dr. James Bannerman, "proud, lazy and inefficient," paid so little attention to its duties that he let the mediciner's manse to a tailor and went to live elsewhere.³ He died in 1838. It is said that neither of the Bannermans lectured during their 45 years' tenure of the post.⁴

Alexander
and James
Bannerman

After the death of the younger Bannerman, William Gregory, grandson of Dr. John Gregory, was appointed to the post of mediciner. William Gregory took a special interest in chemistry, and five years later, in 1844, was appointed professor of chemistry in Edinburgh University, when he was succeeded at King's College by Andrew Fyfe, who had been assistant to Professor Hope in Edinburgh. Fyfe became professor of chemistry to the University of Aberdeen in 1860.

William
Gregory

As we have already seen, various attempts had been made to unite the two universities of Old and New Aberdeen. A temporary union was effected by Charles I. in 1641, under the title of "King Charles's University," but this was premature, and ended in a complete fiasco.⁵ This attempt, in any case, hardly concerned

Attempts to
unite the
two colleges

¹ Bulloch: "History of the University of Aberdeen," London, 1895, p. 162.

² Anderson: "King's College Officers and Graduates," p. 38.

³ Bulloch: "History of the University of Aberdeen," London, 1895, p. 165.

⁴ "Studies in the History of the University," Edit. by P. J. Anderson, Aberdeen, 1906, p. 312.

⁵ Bulloch: "History of the University of Aberdeen," London, 1895, p. 161.

medicine, because the professorship of medicine at Marischal College was not founded until 1700. It served, however, to provoke a feeling of resentment between the two colleges or universities which, during the 17th century, did their best to entice students away from one another.

The waste of energy of having two universities side by side teaching the same subjects to a mere handful of students is obvious, but this fact does not seem to have impressed the authorities, who had an interest in maintaining it. Four schemes of union were proposed during the 40 years 1747 to 1787, of which the most important was that recommended by Professor Ogilvie for the foundation of a medical school, but all of these were abortive.

Two medical schools

After the collapse of the last proposal for union, each college tried to create a medical school for itself. At King's College, under Sir Alexander Gordon and the two Bannermans, the office of the mediciner had become a sinecure, although William Chalmers, as we have seen, tried to bring the office back to life. From Marischal College, however, came the real impetus towards medical education. It was a significant fact that three successive Principals in the 17th century, Patrick Dun, William Moir, and James Leslie, had been physicians, and medicine was added to the curriculum in 1700. The erection of the Infirmary in 1740-42, close to Marischal College, had a most important influence in stimulating medical study; and James Gordon, the professor of medicine, who was the first physician to the six-bedded institution, brought his students there to see the cases.

The real movement which initiated an effective medical school came from the students themselves with the foundation of the Medical Society in 1789. The society gained an official sanction by obtaining permission to meet in the Greek class-room at Marischal College for a time, and it was fortunate in securing, two years after its foundation, the enthusiastic patronage of William Livingstone, the professor of medicine at Marischal College. Dr. Chalmers, the mediciner at King's College, and Sir Alexander Bannerman, his successor, were also honorary members, and thus gave the society a certain amount of official sanction in the other college.

Gradually the Medical Society and Marischal College became more closely associated, and, in 1815, the principal and professors were made the custodians of its property. The society inaugurated classes on different medical subjects, and invited various lecturers to address it. For example, in 1807, Dr. Charles Skene, who afterwards became professor of medicine in Marischal College, was asked to lecture on anatomy to the society. Many of these lecturers were afterwards absorbed as lecturers into Marischal College.

Most of the students at this time obtained their qualification to practise by apprenticeship, and came to the university only to attend one or two classes of instruction. Those who aspired to the higher branches of the profession, usually graduated at some foreign university or at Edinburgh, and sometimes at Aberdeen. The early part of the 19th century saw not only a greater desire on the part of the

students for systematic instruction, which led to numerous lecturers in Aberdeen giving courses, chiefly in connection with Marischal College, but also produced several attempts at *rapprochement* between the two universities.

In 1818, on the suggestion of Marischal College, a joint scheme of medical instruction was formed, over which the two universities were to have equal power. It was proposed that an equal number of classes should be taught at each college and, during the winter, lectures were to be given on Anatomy, Physiology, Surgery, Practice and Theory of Medicine, Materia Medica, Clinical Medicine and Midwifery, while a course of Botany was to take place in summer.¹

Joint
scheme for
medicine

In 1823, Professor Charles Skene commenced to lecture on medicine immediately on his appointment at Marischal College, but he could not always obtain sufficient students for a class. The mediciner of King's College, however, James Bannerman, resisted all attempts to make him teach, although he promised to begin lecturing as soon as "the most distant chance of benefit" offered itself. Professor Knight began to lecture on botany in 1823, while instruction in surgery, materia medica, anatomy, physiology and midwifery was obtainable by the students about the same period.

The high ideal for a medical school, set by the supervising joint committee of the two universities, is indicated by the fact that, in 1825, they resolved that every candidate for the degree of M.D. should be 25 years of age and must have the Master of Arts degree.²

The result of these strict regulations, however, was that only four degrees in medicine were given by King's College, and 25 by Marischal College, between 1826 and 1839.³

The nature of the joint medical school is indicated in a minute of King's College, dated 6th July, 1818, which includes the report of the medical committee appointed by King's and Marischal Colleges to arrange a plan for the establishment of a medical school. Both universities were to have equal power over the medical school. Courses of lectures were to be given during the winter session on Anatomy, Animal Economy, Surgery, Practice of Physic, Theory of Physic, Materia Medica, Clinical Medicine and Midwifery; and a course of lectures on Botany during the summer. The most important proviso for maintaining the control of each of the two bodies was that the nomination to the lectureship should belong alternately to each college, and that the appointment made by one college should be confirmed by the other.

Details of
the scheme

Arrangements were made that the mediciner of King's College and the professor of medicine at Marischal College should lecture, the one on theory and the other on practice of physic, the professor who first began to lecture having the right to choose which of the two subjects he would lecture upon. A standing committee was to be appointed in each college to superintend the carrying out of the objects of the school. It was also provided that an equal number of classes should be

¹ Bulloch: "History of the University of Aberdeen," London, 1895, p. 109.

² Bulloch: *Op. cit.*, p. 170.

³ Rait: "The Universities of Aberdeen," Aberdeen, 1895, p. 213.

The scheme dissolved

taught at each college. The scheme proceeded with more or less friction for 21 years, but on 11th April, 1839, it was finally dissolved by King's College, where the Senatus unanimously resolved "that all connection with the Marischal College in reference to the Medical School shall cease from and after the close of the Session," as it was found "inexpedient and even dangerous to maintain any further intercourse with Marischal College respecting the Medical School, when the letter and spirit of the original agreement have been so palpably violated."¹

Burning of Moir's dissecting-room

A severe blow had been dealt to medical studies connected with the Aberdeen Colleges by an occurrence known as "the burning of the burking-house," in 1831. Early in the 19th century, before the passing of the Anatomy Act (1830), the supply of bodies for dissection had been very difficult to obtain and had only been made possible by the enthusiastic though often ill-directed "resurrectionist" activities of the Aberdeen medical students in the surrounding country churchyards, which vied with those recorded of Liston and other surgeons in Edinburgh. The terror inspired by the Burke and Hare affair of 1828 in Edinburgh had spread to Aberdeen, where Andrew Moir was lecturer on anatomy in 1831. The anatomist was apparently not too careful in his work, and one day a dog scraping in the open ground behind the anatomical theatre in St. Andrew Street revealed a dissected human limb to some women passing to the bleach-green. A crowd gradually collected, and it was found that the fragments of a dead body had been carelessly buried.

The theatre appears to have had a sinister appearance, with three false windows to the front and receiving its lighting from behind. An excited and furious mob having assembled, broke into the theatre and found three bodies laid out ready for dissection, which were borne off through the streets in triumph. The place was ransacked, instruments and furnishings destroyed, and the mob, swelled to thousands, filled the neighbouring streets. Among them were jostled the protesting Provost of Aberdeen, members of the Town Council, policemen and soldiers from the barracks, incapable of any action amid a mob of 20,000 howling people. Andrew Moir, appearing on the spot, was pursued by a section of the crowd, thirsting for his life, but finally managed to conceal himself beneath a tombstone in the churchyard of St. Nicholas. Tar barrels and other combustible materials were brought and set on fire, the walls of the building were undermined, and in an hour literally not one stone was standing upon another of the blazing theatre. So ended this extraordinary example of mob law, which formed a serious set-back to medical study in Aberdeen.²

Later medical school of King's College

After the disruption of the Joint Medical School in 1839, a house was purchased in Kingsland Place, Aberdeen, by King's College, and fitted up as a medical school. Here William Gregory, the newly-appointed mediciner, was the moving spirit, and a list of medical classes, advertised in the *Aberdeen Journal* of 23rd October, 1839, comprises materia medica (taught by Gregory), institutes of medicine, botany,

¹ Anderson: "King's College Officers and Graduates," Aberdeen, 1893, p. 85.

² Rodger: "Aberdeen Doctors," 1893, p. 240, *et seq.*

chemistry, surgery, midwifery, anatomy and medical jurisprudence. The school attracted a certain number of students, but when Gregory left for Edinburgh in 1844, the school gradually went down, although it continued to exist until the fusion of the two colleges in 1860.¹

The following is a list of lecturers in the medical school which was formed under the auspices of the two colleges in 1818, and continued till 1839, when the partnership was dissolved by the Senatus of King's College. The lecturers after this date are those appointed by King's College only, up to the time when the two colleges, in 1860, were fused as the University of Aberdeen :—

1818.	Dr. Charles Skene	Anatomy.
	Dr. William Dyce	Midwifery.
	Dr. George Barclay	Surgery.
	Dr. William Henderson	Materia Medica.
	(Previously recognised as lecturers by Marischal College and now by the joint school)	
October 31	Dr. Alexander Ewing	Physiology.
1819, October 18	Dr. Robert White	Institutes of Medicine.
	(Resigns 29th June, 1820)	
1820, August 28	Dr. Patrick Blaikie	Surgery.
	(In place of Dr. Barclay, deceased)	
1823, August 16	Dr. Alexander Ewing	Anatomy.
	(In place of Dr. Skene, now Professor of Medicine, Marischal College)	
1826, November 6	Mr. Alexander Fraser, M.A.	Midwifery.
1827, April 9	Dr. William Knight	Botany.
	(Appointment made by Marischal College, where Dr. Knight was Professor of Natural Philosophy. He taught Botany voluntarily since 1823)	
1828, December 6	Dr. James Torrie	Institutes of Medicine.
1830, April 16	Dr. Alexander Ewing	Surgery.
	(In place of Dr. Blaikie, deceased)	
May 14	Dr. William Pirrie, M.A.	Anatomy and Physiology.
November 20	Dr. William Laing, M.A.	Clinical Medicine.
	(The last four appointed by Marischal College : approved by King's)	
1831, January 19	Dr. John Geddes	Institutes of Medicine.
	(In place of Dr. Torrie, resigned)	
1834, September 16	Dr. William Laing	Surgery.
	(In place of Dr. Ewing, resigned)	
1839, July 23	Mr. Andrew Moir	Anatomy.
	Dr. Alexander Kilgour	Practice of Medicine.
	(Lecturers in King's College only)	

¹ Rait : "The Universities of Aberdeen," Aberdeen, 1895, p. 226.

1839, October 22	Mr. William Templeton Mr. George Dickie Mr. David Kerr Mr. Robert Robertson (Each for a period of five years)	Institutes of Medicine. Botany. Surgery. Midwifery.
November 23	Mr. William Charles Fowler	Medical Jurisprudence.
1840, October 20	Mr. George Dickie	Materia Medica.
1841, October 30	Mr. Alexander Fraser (Joint Lecturer)	Midwifery.
1844, March 18	Mr. E. B. Shirreffs	Anatomy.
September 28	Dr. William Templeton	Materia Medica.
October 7	Mr. William Mitchell	Institutes of Medicine.
1845, June 10	Dr. George Ogilvie	Institutes of Medicine.
October 25	Mr. Peter Redfern, F.R.C.S., Lond. (Professor of Anatomy, Queen's College, Belfast, 1860)	Anatomy.
1846, November 13	Dr. Robert Jamieson	Medical Jurisprudence.
1847, September 15	Mr. George Rainy	Midwifery.
1849, June 22	Dr. Alexander Harvey (Lecturer on Theory of Medicine, Maris- chal College, in place of Dr. Kilgour, resigned)	Practice of Medicine.
July 31	Dr. David Mackintosh (In place of Dr. Ogilvie, resigned)	Institutes of Medicine.
1850, February 7	Mr. John Christie (In place of Dr. Dickie, now Professor of Natural History, Queen's College, Belfast ; and in 1860, Professor of Botany, Univer- sity of Aberdeen)	Botany.
September 5	Mr. John Christie (In place of Dr. Mackintosh, resigned)	Institutes of Medicine.
1851, February 15	Mr. Wyvill Thomson (In place of Mr. Christie, Professor of Natural History, University of Edin- burgh, 1870)	Botany.
1852, October 11	Dr. Robert Jamieson (In place of Dr. Harvey, resigned)	Practice of Medicine.
1853, January 22	Dr. Duncan Reid	Medical Jurisprudence.
April 9	Rev. John Longmuir	Natural History.
April 22	Rev. John Crombie Brown	Botany.
May 26	Dr. Joseph Williamson	Practice of Medicine.
1854, November 9	Dr. Robert Rattray	Materia Medica.
1857, May 1	Dr. Christie (To act for Rev. J. C. Brown during illness) ¹	Botany.

Early
student life
at Aberdeen

The life of undergraduates at Aberdeen in the early days is a matter of considerable interest.² At the inception of the two universities it was designed that the students should live in residence in the colleges on the mediæval plan,

¹ Anderson : " King's College Officers and Graduates," Aberdeen, 1893, p. 83.

² Bulloch : " History of the University of Aberdeen," London, 1895, p. 176.

but this arrangement was gradually abandoned. In 1753, Thomas Reid, one of the regents of King's College, who afterwards became professor of moral philosophy in Glasgow University, determined to re-introduce the system of residence at Aberdeen.

The students, he held, by living in lodgings, were both exposed to temptations and badly served in the matter of food. The regents were now to visit the students' rooms at night, and to see that the college gate was shut at 9 every evening and opened at 7 in the morning. The rent of a room in the college, which was furnished only with a bedstead, table, grate and fender, varied from 7s. to 20s. per session, while food could be obtained at the price of 40s. per quarter. A student's yearly expenses, including class fees, might thus amount to not more than about £12 in the 18th century. The mediciner attended those who were "valetudinary," this being, with several of the mediciners, practically their only service rendered to the college. Marischal College, about the middle of the 18th century, abolished the system of "regenting" and of residence in college, because "experience has shown the vanity of it." At King's College the system also gradually died out, although some traces of it remained into the 19th century.

With the abandonment of supervision there developed a considerable boisterousness of spirit and action, which has been regarded as characteristic of Scottish students, but especially of those in Aberdeen. A picture of the way in which students lived at Aberdeen, about 1781, has been drawn by Colman in his "Random Records." He says:—

"In the mean time, he (Professor Roderick Macleod) recommended my getting a lodging with *Mrs. Lowe*, who lived in the cabin, one storey high, opposite to the college gate.

". . . With full instructions from him, whither to proceed, we wish'd him a good morning ;—chose my apartments in the college ;—then to *Mrs. Lowe*, hired her best room. . . . Night arrived, and the Landlady brought me up *one* tallow candle, which she said would make me cheerful.—I look'd round the whitewash'd room ;—a truckle-bed stood in the corner of it ;—some square bits of peat smoulder'd on the pavement of the fire-place, which had no grate ;—the wind began to rise, the hail to pelt, and the curtainless window to rattle. . . . I was wretched ;— I undress'd myself, turn'd down my tallow candle for want of an extinguisher,—and crept into bed.

". . . Mere *boys* pour in, from the Highlands, and other parts of the country, and sojourn there for five months, annually ;—the remaining seven months being a period of uninterrupted vacation.—They occupy almost unfurnish'd rooms, with bare walls ; huddling two, three and sometimes perhaps four in a bed. The accommodation of my Scotch servant, who had a room, and bed, *to himself*, exhibited a luxury which excited their envy."¹

¹ Colman : "Random Records," London, 1830, Vol. II., pp. 82 and 87.

The following advertisement appeared in the *Aberdeen Journal* in 1756, and shows what the authorities considered were the necessary expenses of learning in those days :—

KING'S COLLEGE, OLD ABERDEEN.

The Masters of the said College do earnestly recommend to parents, that their money expended upon their sons at the College may pass through the hands either of one of the Masters or of some other discreet person in town, so as the Masters may have access to see the account of their expenses. And, to prevent any imposition on parents or others as to the expense of education at the said College, it is hereby notified, that the whole necessary expense of a student during the session of seven months, exclusive of clothes, books, and pocket-money, amounts to between £9 and £10 at the second table, and £11 and £12 at the first.¹



SEAL OF KING'S COLLEGE
ABERDEEN

¹ Extract from the *Aberdeen Journal*, 1756. Quoted from Gavin Turreff's "Antiquarian Gleanings," Aberdeen, 1859, pp. 260-261.

