

able to all cases, it is useful to bear in mind some definite scheme which may be modified to suit individual requirements. At the clinic of Dr. Brocq in Paris it is usual to give a course of three injections of neosalvarsan in doses of 0·3 grms., 0·45 grms., and 0·6 grms. respectively, allowing a week to elapse between each two administrations.

This is followed up by a course of mercurial treatment, consisting of intravenous injection of one of the soluble salts, usually the cyanide, which contains a high percentage of mercury. The usual dose of mercuric cyanide is $\frac{1}{3}$ grain, and this is given in a 1 per cent. aqueous solution daily, or every other day during the first half of each month for several months, after which a milder treatment, such as the oral administration of liquor hydrarg. perchlor., is adopted. Brocq finds that with these comparatively small doses of neosalvarsan he can obtain results quite as good as those which follow the large doses advocated by Ravaut.

THE ROYAL COLLEGE OF SURGEONS OF EDINBURGH:
ANATOMY IN THE EARLY DAYS.

By C. H. CRESWELL, F.S.A. (Scot.).

It is not without misgivings that the writer ventures to add yet another chapter to that much-written-about but still attractive subject—the early Anatomical School of Edinburgh. With Sir John Struthers' historical sketch of its lecturers and Mr. C. W. Cathcart's interesting address on its lecture rooms already in the field, besides the other contributions which have appeared from time to time, the chance of presenting something new seems almost hopeless; but if he cannot claim to have hit upon an untapped source of information, nor to have made any striking discoveries, he hopes that a few details and some minor points not hitherto brought to light may prove to have an interest sufficient to warrant publication.

As the early minutes of the College refer more to its domestic affairs than to its professional character, but little information can be gained as to the use the Surgeons made of the "one body a year" which was granted to them for anatomical purposes by the Town Council in 1505. For the same reason it is impossible to describe the features of the examination mentioned in the Seal of Cause or to form an estimate of its worth. In 1647, however, the subjects of examination were clearly defined by an Act which explained that "as no constant course had hitherto been kept or

preserved at the trial of Intrants, the examination shall in future be conducted as follows:—On the first day, the candidate shall begin with the introduction to Surgery . . . and make a general discourse of the whole of Anatomy without any demonstrations.” On the second day, “he is to demonstrate by ocular inspection more particular on some parts of the Anatomy which shall be appointed to him by the Deacon and Masters, and to answer the demands of his examination and masters thereupon.” Thirdly, he is to show some operation on the foresaid subjects as the Deacon and Masters shall think fit, and “for facilitating the Intransit his examination and trial they do allow him to have at his own pleasure a conductor and accordingly, if the Deacon and Masters find him qualified or unqualified, they may admit or reject him or otherwise continue his examination in the first subject—aye and until they find him qualifit.”

In all probability this orderly system was due to the exertions of James Borthwick, an apothecary who had become a member of the Incorporation in 1645, and whose admission entry contains the important declaration that he took the oath to conform to the Seal of Cause, “especially to the point of dissecting of Anatomy for the further instruction of apprentices and servants.” It may be claimed for James Borthwick, therefore, that he was an advanced anatomist, and perhaps the first to introduce the dissection of the human body into Scotland, for this clearly proves that practical anatomy was taught, and also formed a subject of examination, at the very early period of 1647.

From that time no particular attention seems to have been given to anatomy until the advent of Alexander Monteith, who obtained from the Town Council a promise of the bodies of prisoners who died in gaol, for dissecting purposes. This was closely followed by an application of a similar nature by the Incorporation itself, as it was apparent there were other bodies at the Council’s disposal besides those allotted to Monteith. The Act of the Town Council, including the Surgeons’ petition and the conditions of their gift, is dated 2nd November 1694, and is as follows:—

“Anent a petition given in by the Incorporation of the Chirurgeons of Edinburgh, showing, The Petitioners understanding that the Council for encouragement of so necessary a work as the improving of anatomy has been pleased upon a bill given unto them by Alexander Monteith, one of their own number to grant him a gift of their bodies that die in their Correction House, and

the bodies of foundlings that die upon the breast, and to allow him a convenient house for dissection, and the use of the College Kirk Yard for the burial, And the Petitioners that the improvement of Anatomy is of so necessary import that the same desire to be very much encouraged, and that the ground of their appearance against Mr. Monteith's gift was only upon the supposition that he had enhanced and monopolized the whole subjects of anatomical dissections. But finding that besides these subjects that the Council had been pleased to give him were yet other subjects that might fall in the Council's power to give the petitioners, viz.:—The dead bodies of foundlings after they are off the breast, and the bodies of such as may be found dead upon the streets, and such as die violent deaths, all which who shall have nobody to own them, upon which subjects the petitioners might make anatomical dissections for the further improvement of anatomy, and being confident that the Council's forwardness to encourage so necessary a work Which being considered by the Council they (notwithstanding the above mentioned act in favour of Alexander Monteith and without prejudice thereto) allow to the petitioners the dead bodies of foundlings who die betwixt the time they are weaned and their being put to schools or trades, while they remain upon the charges of the Kirk, unless the friends of those concerned reimburse the Kirk Treasurer whatever they have cost the town. As also they allow the dead bodies of children stifled in the birth which are expired, and have none to own them, as also the dead bodies of such as are *felo de se*, when it is found unquestionable self-murder and have none to own them. Which includes what former pretentions of that kind the petitioners have, the petitioners always burying the dead bodies within ten free labouring days upon their own charges in what place that shall be appointed by the Council. And that these presents shall take effect in the winter session only which in this case is reckoned to be from one equinox to the other. And it is hereby declared these presents are only granted expressly upon conditions that the petitioners shall before the term of Michaelmass 1697 years build, repair and have in readiness an anatomical theatre where they shall once a year (a subject offering) have a public anatomical dissection as much as can be shown upon one body, and if they fail these presents to be void and null."

More than two years elapsed before the Surgeons decided whether they would accept these conditions or lose the benefit of the Act, but upon its being put to the vote, they unanimously

agreed to accept the Council's terms and build a theatre at their own expense.

At a meeting of the Calling on 17th December 1697 the theatre was reported to be finished (see Fig. 2). A committee was then formed to consider the methods of carrying out the dissections and to appoint the operators.

Five years later—January 1703—the deacon represented to the Calling that the dissections and demonstrations of the several parts of the body obtained from the Town Council of Edinburgh on 29th November past were performed by the several members chosen by them for that purpose, he therefore desired their opinion upon the same, and whether it ought to be recorded in their books. The operators were then desired to leave the room, and the Calling having considered, gave their opinion by a vote as follows:—"For the first day, a general discourse on anatomy. The common teguments and muscles of the abdomen, performed by James Hamilton, Deacon. It being put to the vote whether they were satisfied with it or not, they all declared they were well satisfied and having called him in, gave him their thanks. For the second day, the peritoneum, omentum, stomach, intestines, mesentery and pancreas, performed by John Baillie. On the third day, the liver, spleen, kidneys, ureters, bladder and parts of generation, performed by Alex. Monteith. 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, performed by Dr. Pitcairn." After all the operators had been called in and thanked, a vote was carried that the same be inserted in their books, there to remain "*ad futuram re memoriam.*"

This is the first public dissection mentioned in the Surgeons' records; another was performed in April of the following year, and carried out in much the same way. The treasurer's account of incidental charges, disbursed by him in November 1702, contains some significant items which no doubt were incurred in connection with the first demonstration:—

27th November.	To the officers and trone men	
	for carrying David Mylles	
	corps *	£1 8 6

* On referring to Hume's *Commentaries on Crimes* we find that David Mylles was executed for incest with his sister Margaret, and that the latter was also executed for the murder of her incestuous issue.

12th December.	To the two Sentinells for six days attendance . . .	£4 7 0
”	” For Weights for weighing the body . . .	0 9 6
”	” To the Suttimen for carrying the body from the gibbet to the church . . .	0 17 6

After two public lectures had been carried out in this manner, a new system was adopted whereby the entire demonstration was given by one man. The alteration was brought about in consequence of several members of the Calling having been informed that a person then in Edinburgh was about to apply to the Incorporation for the privilege of teaching anatomy both in public and private, and if the Calling would give him access to the bodies they were entitled to, and the use of the theatre, he would give their apprentices and servants the benefit of the yearly dissection gratis. On hearing of these proposals, Robert Eliot, who became a master surgeon in 1696, petitioned the Calling that he humbly judged it would no less tend to the credit of the Incorporation to appoint one of their own number who would make the same offer, “especially seeing they had already begun it in their own persons”; for that end he offered his services, and hoped the Calling would favourably consider his offer, and at the same time impute it to a desire of preventing extraneous hands meddling in their matters, than any prospect he might have in view. The Calling granted his request, gave him the use of the theatre, and promised that none of their apprentices or servants should be taught by any person who was not a member of their Society.

In this way Eliot became teacher of anatomy to the Incorporation, and some few months later (29th August 1705) received an appointment in the Town’s College or University, at a salary of £15 stg. per annum. Although not appointed Professor of Anatomy in as many words, he is as such subsequently referred to in the Burgh Records, and as the Magistrates are the best interpreters of their own Acts, Eliot may claim the distinction of being the first Professor of Anatomy to the University of Edinburgh. In 1708 Eliot applied to the Incorporation to have Adam Drummond conjoined with him in teaching, “he having already obtained an Act from the Town Council for that effect.”

A great impetus was now given to the teaching of anatomy, and although the Town Council had disposed of all unclaimed bodies in favour of the anatomist, the supply was unequal to the

demand. The zeal of the student was unbounded, and when body-snatching was resorted to in 1711, it was only natural that suspicion should rest with those most interested in the dissecting rooms. Whenever these desecrations took place, therefore, the Surgeons were strongly suspected, and in order to free themselves from such imputations they passed the following Memorial Act, which was sent to the Magistrates in Council:—

“The Incorporation taking into their consideration that of late there has been a violation of the sepulchres in the Greyfriars Churchyard by some who most unchristianly have been stealing, or at least attempting to carry away bodies of the dead out of their graves; a practice to be abhorred by all good christians, and which by the law of all nations is severely punishable; But that which affects them most is a scandalous report, most maliciously spread about the town, that some of their members were accessory thereto, which they cannot allow themselves to think, considering that the Magistrates of Edinburgh have been always ready and willing to allow them what dead bodies that fell under their gift, and thereby plentifully supplied their theatre for many years past, which would considerably aggravate their crime if any of their number should be guilty thereof. They do therefore declare their abhorrence of all such unnatural and unchristian practices, earnestly intreating the Magistrates to exert their utmost power they are capable in law for the discovery of such atrocious and wicked crimes, that the authors, actors and abettors thereof may be brought to condign punishment. The Deacon, Masters and Brethren on their part and for the vindication of their Board have this day enacted that if any of their number be found accessory to the violation of the sepulchres in the Greyfriars Church Yard, or in any burial place whatsoever, or shall be convinced of having taken, or been accessory to the taking of any dead bodies out of their graves, they shall be expelled their Society, their names razed out of their books, their acts of admission torn and shall forfeit all the freedom and privilege they enjoyed by being freemen of their Incorporation, and if any Apprentice or Servant belonging to their number shall be found guilty of the foresaid crimes his name shall be expunged out of their books, he shall forfeit the benefit of his Indentures, and shall be expelled his Master’s service with disgrace.”

On the death of Eliot, John M’Gill, in 1717, became associated with Drummond as Joint-Professor of Anatomy. The minute recorded in the Surgeons’ books is quoted as showing that M’Gill appears to have received his Professorship at the hands of the Surgeons.

"The Calling considering that through the death of Robert Eliot, one of their number, Professor of Anatomy in conjunction with Adam Drummond, they wanted a professor, Therefore they nominated and appointed Mr. John M'Gill, present Deacon, to be their professor in conjunction with the said Adam Drummond."

The partnership of Drummond and M'Gill was, however, of short duration, for they both resigned their positions—"as the state of their health and business were such that they could not duly attend the said professorships"—in favour of Alexander Monro, then a young man of twenty-two and a member of the Calling of but three months' standing.

The history of the Monros is too well known to require repetition here. A few brief remarks concerning John Monro, the father of the first Alexander, may perhaps not be out of place. He is first mentioned in a minute of the 9th January 1689, when the Calling, "taking into their consideration the good offices and service done and performed to them by Alexander Monro of Bearscroft, Commissar of Stirling, and in hopes of and the farther to engage him to continue his kindness, the Deacon, Masters and Brethren have ratified and approved the booking of John Monro, son of the said Commissar Monro (who was bound prentice to William Borthwick at a time when he was not in a capacity to book the said John, three years not having elapsed since the booking of his late Apprentice) as prentice to Dr. Christopher Irvine, but in respect that the Doctor does not keep a public shop whereby the said John Monro may get insight and knowledge into the art of Chirurgie, he is allowed to stay in service with William Borthwick, his former master, during the remainder of his time."

John Monro became a freeman of the craft in 1703, treasurer in 1708, and occupied the deacon's chair some five years later. With him originated the idea of establishing a medical school in Edinburgh for the uniform teaching of the different branches of medicine and surgery, and to his son Alexander lies the credit for so efficiently carrying his father's cherished plan into effect. His son, known to us in these days as Alexander Monro *primus*, was admitted into the Incorporation on 20th November 1719. His first and second examinations were upon surgery and anatomy in general, and the containing and contained parts of the thorax with the circulation of the blood; his third included fistulas in general, with the operation of fistula lachrymalis; and his fourth and final was upon the bandages of the face and head. A month usually intervened between each examination, but this was dis-

pensed with on Monro representing at his third lesson that he was ready instantly to be tried, and that it was highly inconvenient for him to be delayed, "because he was resolved suddenly to go abroad." Two months later the Surgeons unanimously recommended him to the Lord Provost and Town Council to be Professor of Anatomy within the City.

In 1718, before his admission, he presented to the Surgeons "some anatomical pieces done by himself," for which they ordered their thanks to be given to him, and that his father should be desired to acquaint him with it. Monro's gift, in the shape of an incomplete articulated skeleton, is still in the Surgeons' Museum. A narrow mahogany case contains the specimens referred to, and an inscription informs the reader that "These Anatomical Preparations were gifted to the Incorporation of the Chirurgeon Apothecaries of Edinburgh by Alex. Monro, 1718."

Amongst the papers of the College is a receipted account for thirty-three pounds Scots which contains some curious items, but whether these appear together by mere coincidence or whether a connection exists between them must always be left in doubt. It bears the same date with which Monro's gifts were announced:—

To Walter M'Ardle for gilding and painting case with Mr. Monro's son's preparations . . .	£4 16 0
To Charles Hay for a Chicken Pye . . .	7 13 0
To Ale, Brandy and Cheese . . .	3 15 0
To the Bibliothecarius for Spirits to Mr. Monro's son's preparations . . .	0 12 0

In less than a year after his admission Monro was elected "Library Keeper," a position he held until 1728. During this time many important changes took place. The number of books in the library had been considerably augmented in 1709 by a gift of the library belonging to Thomas Kincaid, containing nearly two hundred volumes. As for curiosities, three scorpions and a chameleon were presented by Lord Royston, and the Calling ordered the Treasurer "to pay the man a crown for showing them two live tortoises"—an incident that will not cause so much surprise after reading in the *Edinburgh Herald* that on a dromedary and camel being exhibited in Edinburgh in 1759, crowds flocked to see them, and doubts were expressed whether there were other "two such animals in the whole island of Great Britain."

Monro was for many years closely identified with the Incorporation, and regularly gave his lectures in their theatre. This continued until 1725, when, his anatomical preparations being in

danger as the result of a public demonstration against body-snatching, he was forced to seek safety within the gates of the University.

In this way the chair of Anatomy was transferred from the Incorporation to the Town's College, where Monro *primus* carried on his arduous duties for many long years. The last time we hear of him in the Surgeons' books is in 1756, when, on joining the College of Physicians, he took leave of the Incorporation in a letter bearing that as he had lately engaged in a business which was thought inconsistent with the exercise of surgery and pharmacy, both of which he was about to relinquish, it could not be expected that he would attend the meetings of the Incorporation or be employed in any of the offices connected with it, and therefore thought they would not think it necessary to continue his name on their roll.

He, however, "in taking leave did himself the justice to assure them that as he was gratefully sensible of the honour his father and he had in being members of their Society, so it should always be his endeavour to promote the honour and interest of the Surgeons of Edinburgh all that was in the power of their Most and Obed.," etc.

On the occasion of the riot just referred to, the Surgeons' Hall was in peril of being wrecked by a furious mob whose anger against the Surgeons had been aroused again in consequence of the violation of graves for the purpose of dissection. But whatever steps they took to deny their participation in this gruesome work, suspicion naturally pointed to them as the offenders. In 1721 a clause had been inserted in all their indentures for discouraging and preventing the raising of the dead from their graves, and later, in consequence of this disturbance, the Calling had the following notice printed and distributed throughout the town:—

"Act of the Incorporation of Chirurgeon Apothecaries of Edinburgh, April 17th, 1725.

"Considering that several malicious and evil-disposed persons have industriously raised and spread calumnious reports importing that the bodies of the dead have been by them or their apprentices, raised from their graves to be dissected at the Theatre in their Hall; which reports have met with great credit among credulous and unthinking people, insomuch that they have created great uneasiness in their minds, and of late, have been artfully improven by factious designing men into tumults and disturbances in this city. Therefore, the Incorporation to show their just abhorrence

of this monstrous crime, upon the very first rumour of such practices, did, by their Act, dated 27th Jan. 1722, enact, that each apprentice who should be convicted of raising or attempting to raise the dead from their graves, should forfeit their freedom and all privileges competent to them by their Indentures, and be extruded from their Master's service. And for further vindication of the honour of the Incorporation, and removing effectually all groundless suspicions, they have this day enacted that no human body, or any other subject shall be taken for dissection into their theatre, or any other part of their Hall, but such only as shall be allowed by the Magistrates for public dissections, according to Acts of the Town Council for that purpose. And further, the Incorporation oblige themselves and their successors to pay Five pounds stg. to any who shall discover the person or persons accessory to the raising, or attempting to raise the dead from their graves.

“As also, the Incorporation understanding that country people and servants in town are frightened by a villanous report that they are in danger of being attacked and seized by Chirurgeons' 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 rife thereof, do promise a reward of Five Pounds stg., for discovering 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 villanous designs.”

Body-snatching, nevertheless, continued more or less throughout the century, and frequently led to rioting by the populace. In 1724 we read of a scuffle between some surgeon apprentices and the friends of a woman supposed to have been executed, for possession of the body. Luckily the latter were successful, when to their great surprise they found that life had not yet departed. The woman, afterwards known as “Half-hangit Maggie Dickson,” soon recovered, and lived for many years. The records of the Tolbooth also contain an account of two women being executed for stealing a child and selling its body to the Chirurgeons for dissection.

We now pass to the years between 1824 and 1830, which saw great changes in the Medical School of Edinburgh, and particularly in the teaching of anatomy. The introduction into the College curriculum of a three-months' course of dissection or practical anatomy, whilst adding to the popularity of the Anatomical School, soon made it apparent that considerable difficulty would be

experienced in obtaining a supply of bodies, without which it would be impossible to carry the new laws into effect. Even before this, a motion had been made by Mr. Lizars to inquire how far the difficulties of prosecuting the study of anatomy in the city were injurious to the interests of the College and of surgery, but nothing seems to have come of it. Another four years passed, and then the Surgeons, thoroughly roused, called a special meeting of the College to consider the propriety of petitioning Parliament to amend the laws which affected the procuring of dead bodies for the medical schools. Under the existing laws, it was said, the supply of these subjects had become in a high degree both inadequate and precarious, while those bodies that could be obtained were not only exorbitantly high in price but so disgustingly putrid as to render them to a great extent useless. Mr. Lizars, in deploring the situation, stated that there could be but one opinion on the subject, and urged the necessity of something being done to remove the obstruction which existed to the study of anatomical science in the country.

The President stated that he was well aware of the importance of the object, but doubted if it would be best promoted by a public discussion in Parliament. The difficulties, he said, which stood in the way of getting subjects did not arise solely from the state of the law, but principally, if not entirely, from the state of public opinion which prevailed, perhaps more in Scotland than in any other country, against the measures which were necessary for procuring dead bodies. He therefore thought that the most prudent course for the College to pursue would be to approach Mr. Peel, whose attention had been already directed to the subject.

The President's advice was adopted, and a Memorial sent to Mr. Peel, who replied that as he was presenting petitions to Parliament from other bodies he would gladly present one from them. At the same time he requested the College to furnish him with some details concerning the practice of anatomy in Edinburgh, the present number of schools and students, and the price at which subjects for dissection could be obtained. "I apprehend," he added, "the public feeling against dissection is stronger in Scotland than it is in this country or in Ireland, and that it is much more difficult from local circumstances to find the means of supplying subjects than in almost any other part of the Empire."

Petitions were then sent to both Houses, stating that it was almost impossible, for the reasons stated above, to obtain the necessary opportunities of studying or teaching anatomy without

being directly or indirectly engaged in the commission of crime, etc. In the meantime a committee was appointed by the College to draw up a report in answer to Mr. Peel's inquiry. Dated 4th May 1828, this report contains an interesting description of the conditions under which anatomy was taught at the period in question.

Forty years ago in Edinburgh, it runs, there was no teacher of anatomy besides the Professor of Anatomy at the University. There was no class of practical anatomy, and it was believed that no bodies were dissected except those used by Dr. Monro for his demonstrations. Soon after this period the study of practical anatomy was introduced and rapidly advanced in progress. This seems first to have arisen from the desire of the students to attain knowledge in this department, and from the zeal of individuals who established schools of private anatomy in promoting its study, and more recently from the College of Surgeons having rendered it indispensable that all those who apply for the diploma of surgeon shall have attended a course of practical anatomy; from the *Senatus Academicus* having partially introduced it as a branch of study required in those who were examined for medical degrees, and from the public boards requiring it in candidates for the medical offices in the public service.

At the date of the report four Fellows of the College besides the Professor of Anatomy were lecturing on the practical part of that subject in Edinburgh, and the total number of students studying medicine was estimated at about 900, of whom 380 were calculated to have attended the extra-mural classes. The number of subjects used in the previous winter was said to have been 150, and on an average cost the lecturers nine or ten pounds each. They were supplied to the students, however, at about eight pounds each. From the statement, continued the report, it was obvious that since the cultivation of practical anatomy the supply of bodies for dissection had not increased in proportion to the demand, and was not so ample as necessary; the teachers, in fact, had submitted to a considerable pecuniary sacrifice in order to place the means of prosecuting their anatomical studies within reach of the students.

The committee, therefore, were of opinion that of 900 students annually resorting to the town, 300 would necessarily require to attend courses of practical anatomy, and that the supply of subjects should be at the rate of, at least, one body to each student. If this supply could be procured at about five pounds

PLATE I.



FIG. 1.—AS IT APPEARED *circa* 1770.

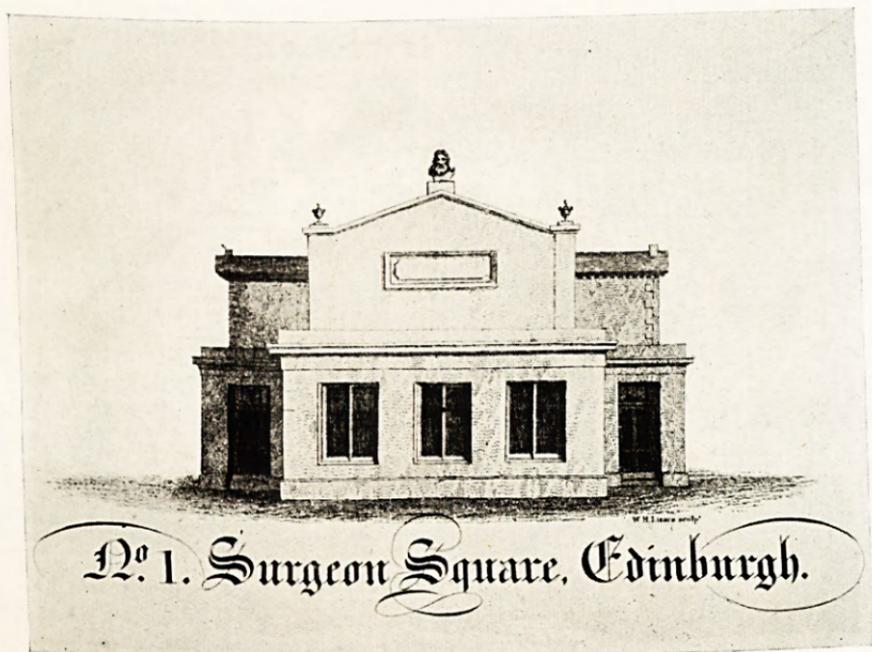


FIG. 2.—THEATRE OF ANATOMY AND SURGERY.

PLATE II.



DR. KNOX IN HIS FAVOURITE ATTITUDE, WITH ARM EXTENDED AND
"FOREFINGER SPARKLING WITH DIAMONDS."

each, it was thought that every purpose desired would be served. When the study of practical anatomy was followed by students only to a limited extent, the small number of subjects required was procured in Edinburgh and its vicinity, and the price was three or four guineas. As the school of anatomy extended and a greater number of bodies was required, the violation of churchyards was more frequently detected, and the feelings of the populace were often irritated by the audacity and recklessness of the degraded class of men who were necessarily employed in the occupation of procuring bodies, and whose numbers were considerably increased. Afterwards for some time a very considerable supply was obtained from London, though at an increased rate of expense. There was reason to believe that the new demand for bodies had the effect of diminishing in some degree the supply of the anatomical teachers in London—it diminished to a certain extent the dependence of the body-snatchers and these teachers, and contentions arose between them and among the body-snatchers themselves. The difficulties of procuring subjects in London were by this time much increased, and at last, from various causes, the supply almost entirely ceased. After this, bodies were secured chiefly from a distance, and a considerable number was obtained from Ireland, where it seems they could be obtained more easily and with less outrage to the public feelings.

The committee acknowledged their difficulty to find a remedy which could have an immediate effect upon the evils complained of, but they thought that if the bodies of persons who died friendless and without anyone to care for them (which numbered between 400 and 500 annually) could be procured for anatomical purposes, a full supply for all useful ends would be obtained. If this were done, it was thought that the public at large would soon understand that the greater the facility which was given for procuring the bodies of the worthless and those who died without friends, the less would the feelings of the respectable part of the community be outraged.

Strange to say, during the very time these negotiations were being carried on, those notorious miscreants Burke and Hare were, all unsuspected, carrying on their loathsome trade in the West Port.

In March 1829 the Anatomy Bill was introduced by Mr. Warburton, but on account of its unsatisfactory details and unpopularity with the public it was thought expedient to withdraw

it. The principal objection the College had against it was, that while it did not at all insure that teachers of anatomy could obtain any supply of bodies from the sources which it rendered legally available, it would at once effectually prevent them from obtaining the necessary supply from any other source; but when the College heard that the Bill had passed the Commons and had been carried to the Lords, they decided to petition that House against it.

In the meantime a letter had been received from Mr. Warburton, who had framed the Bill, deprecating any objection to it on the part of the College that might have the effect either to throw it out or to provoke discussion, the consequences of which, he said, might be the introduction of still stricter and more objectionable clauses. This produced such a change in the sentiments of the teachers and various members who took an interest in the subject, that it was at once agreed that it would be better for the Bill to pass as it then stood than that any objections should be made which would lead to its being thrown out altogether.

The Bill, however, was withdrawn, but only to be re-introduced a couple of years later, in a slightly modified form, in consequence of an attempt having been made in London to imitate the doings of Burke and Hare in Edinburgh. This time it was more successful, and was ultimately passed into law, and so with it disappeared most of the difficulties of the anatomists.

The information contained in the College report to Mr. Peel was gathered from all the lecturers on anatomy in the town, with the exception of Dr. Monro, who sent his report direct. It seems possible that Dr. Knox may also have had some independent communication with Mr. Peel, for amongst the College papers is a letter addressed to the Secretary of State and signed by Dr. Knox, in which the latter gives his own views on the question and relates some of the difficulties which he had encountered in his endeavours to obtain anatomical subjects for the use of his students. In commenting upon the obstacles which obstructed the anatomist in his work, he first blamed the local authorities, including the magistrates, police officers, and officers of Excise and Customs; in proof of which he submitted the following statement:—"A short time ago I was anxious to import anatomical subjects via Liverpool—they were in the best possible condition, having been selected by one of my assistants sent to Ireland for that express purpose; they were most carefully packed, and indeed, deceived all those connected with the shipment and trans-

port, until their arrival in the Brunswick Dock of Liverpool. There the packages were broke into by an officer of the Customs and Excise, the contents by some means or other got into the hands of the local police, and were afterwards, as I have been assured, interred at the public expense; finally, that nothing might be wanting to render the exposure as complete as possible, an account of it found its way into the Liverpool journals, and the police even endeavoured to trace the names of the shippers of these subjects, with what view I cannot pretend to say. Some few days ago some packages were seized at Greenock, and an exposure made which has alarmed this part of the country. At Carlisle, last winter, the authorities broke open, on mere suspicion, a package passing through the town by coach; this package was done up with the greatest care. They knew by the way-bill that it must have travelled a hundred miles before it fell into their hands, and was on its very way to Edinburgh; yet, regardless of these circumstances, with which they were well acquainted, they seized the package, summoned a jury, whose verdict was 'that they had found a dead body in a box, but how it came there they knew not.'

"There is one subject in particular," continues the letter, "on which I beg most respectfully your attention. Anatomists generally are most anxious to avoid public scenes such as these, and for this purpose they are careful to select subjects which are claimed by no relative or friend, and thus often avoid the painful necessity of violating the burial grounds and by so doing inflicting a shock on the most sacred feelings of human nature. Now, when anatomical subjects procured under such circumstances are nevertheless seized on their way to the schools, very alarming reprisals are made in the burying grounds of the place where the seizure has been made, often without the smallest regard to risk or circumstances. Clear proof of this can easily be submitted to you should it be required."

In the second place, Dr. Knox considered that the conduct of the teachers of anatomy towards each other had at times been disgraceful, and still continued so as much as ever. "During the course of last summer," he said, "two cases containing anatomical subjects were shipped on board a steam packet in Dublin Harbour. A few hours previous to the sailing of the vessel, one of the lecturers in Dublin, who had probably received information of the shipment, sent his assistant on board, who, suspecting the boxes to contain subjects, procured a warrant, had them broken open,

and their contents left exposed on the quay for, as I am informed, the space of two days, apparently for the purpose of irritating the populace and preventing the supply of the schools; and this at a time when subjects abounded so much in Dublin that, to use a mercantile phrase, the article was in no demand whatever. Permit me most respectfully to remark to you, that I have ever been an advocate for the making these matters as little public as possible, but now that the anatomical enquiry is patent to all, I therefore thought it my duty to state to you the obstacles which impede the progress of anatomy in Great Britain," etc.

How the letter fell into the hands of the College is immaterial. It bears date 3rd November 1828 (Monday), but the fact that Burke was arrested on Saturday night, 1st November, and Hare early next morning, may have had something to do with its never being sent to the Secretary of State.

THE PREVALENCE OF LIVING TUBERCLE BACILLI IN EDINBURGH MILK.

By JAMES MILLER, M.D., F.R.C.P.E.

AT the suggestion of Professor Ritchie I undertook the examination of samples of milk from the Edinburgh dairies, with a view to determine what proportion of these contained living tubercle bacilli. The method of collection was simply to send a messenger with a sterile tin for a pint of milk, which was at once brought back to the laboratory at Forrest Road and allowed to sediment overnight in a sterile separation funnel in the cold. The sediment was then withdrawn and centrifugalised. The cream and supernatant milk were poured off and the deposit, mixed with a small quantity of milk, amounting, as a rule, to 10 c.c., was inoculated into three animals, viz., a rabbit (subcutaneously), a guinea-pig (subcutaneously), a guinea-pig (intraperitoneally). The animals, previously weighed, were kept for approximately six weeks. Some died before that time. Cases in which all the animals died under three weeks were regarded as useless, and have not been included in the results.

In all 104 samples were taken. The first was taken on 4th April 1913, the last on 17th November. Of the 104 samples, 3 have to be eliminated, owing to the fact that all 3 animals died before three weeks were out. Of the remaining 101, 16 were found to contain living tubercle bacilli. This result should not be taken as indicating as much as a 16 per cent. infection of