## THE LEGALIZATION OF THE STUDY OF HUMAN ANATOMY

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A MEETING of the Medico-Legal Society was held at the Medical Society Hall, East Melbourne, on May 23, 1936. The President, Mr. Fullagar, K.C., occupied the chair, and Professor F. Wood Jones addressed the members on "The Legalization of the Study of Human Anatomy."

Professor Wood Jones said: It is over a century ago that Mr. Henry Warburton's "Act for Regulating Schools of Anatomy"—known derisively, at the time, as the "Dead Body Bill"—was placed upon the Statute Book. It is surely a testimony to the soundness of the legislation effected by Mr. Warburton's Bill in 1832 that, since that day, no public attention has been directed to the practice of human anatomy and no criticism has been made of the methods by which this practice is made possible.

It might be urged that, since it is nowadays vaguely realized by the general public that cadavera must somehow be obtained for dissection, and since no special public attention has been directed to the matter, it would be as well to let sleeping dogs lie. And with this sentiment I am in whole-hearted agreement. But, on the other hand, there is no subject more fitting for discussion by this Society, for I fancy that neither the medical man nor the members of the legal profession are fully informed on the matter. I have, therefore, ventured to bring this matter forward, after its hundred years of slumber, as one for discussion by an academic society composed of lawyers and medical men.

The subject of the dissection of the human body cannot be approached without some understanding of the prejudice which inevitably clings to it. We must admit that there is, interwoven in the whole story, the idea of the sanctity of the human body, the dislike for its mutilation and the demand that it should find sepulchre intact. I do not propose to speculate as to whether this is an innate

human ideal, or if it arises from the inculcation of any religious dogma. We admit readily that the teachings of Islam demand the preservation of bodily integrity; but I am not prepared to discuss the question as to whether the doctrines of Christianity attach more importance to the immortality of the soul or to the resurrection of the body. But I fancy that the formula of the Apostles' Creed would lead one to suppose that the orthodox Christian shared his beliefs with the followers of the Prophet. Be this as it may, we must admit that, long before the dawn of the Christian era, there was evinced a prejudice against the dissection of We need not discuss the divergent the human body. opinions of Taller and Gruner as to whether the Fathers of Medicine had themselves undertaken human dissection. For myself, I think that the weight of evidence is on the side of Gruner and I am prepared to admit with him that though Hippocrates, Aristotle, Celsus and Galen were well acquainted with the human skeleton and the visceral anatomy of lower animals, there is no evidence to show that they had an intimate first-hand knowledge of the deep anatomy of the human body, such as could have been acquired only from its dissection.

Probably the first anatomical work, which argues a real first-hand acquaintance with anatomy of the human body, emanated from the Ptolemaic School in Alexandria about 344 B.C. Herophilus almost certainly dissected human subjects and, until the fall of the Ptolemaic School, it would seem probable that human dissection was carried on as a regular routine. But after this period the practice appears to have been discontinued. It was Frederick II, King of Sicily, who brought about the rebirth of practical human anatomy in Europe. In 1213 he issued a decree forbidding the practice of surgery to anyone who had not previously passed an examination in human anatomy: and in order to give effect to this measure he ordered that lectures and dissections of the cadaver should be conducted at intervals of five years. From the time of Frederick II of Sicily the study of human anatomy proceeded uninterrupted in continental Europe. The first public anatomy of which we have an account was that performed by Mundinus of Bologna, in 1315, on the bodies of two female subjects. When Berengarius of Capri relinquished his office in 1527 he stated that he had dissected more than 100 human cadavera.

It was in 1543 that Andreas Vesalius—the Belgian son of an English mother—published, at the age of 28, his famous *De humani corporis fabrica* and established the renaissance of human anatomy. Human anatomy was, with the publication of this work, placed upon a real scientific basis. What Huxley did for the crayfish, Vesalius did for man. After 1543 man became a zoological type, the structure of which formed the basis for comparison in the study of animal morphology.

Upon the continent of Europe the scientific study of human anatomy never retrogressed, for it was fostered by the great Universities; and when, more than two hundred years later, opinion in Great Britain was torn between introducing regulating legislation or hushing up the whole business of dissecting, France, Germany, Austria, Italy, Portugal and Holland, as well as some of the American states, had already passed enactments for the legislation, under proper restrictions, of the practice of anatomy in the In Great Britain, however, the progress of the study of practical anatomy was bound up in the developments of the professional Guilds and Corporations rather than in the evolution of the Universities. There is no doubt that in England an early and a brave start was made with the business; and the regulation of, and the responsibility for, the study of human anatomy was undertaken, nearly two centuries before the time of Vesalius, by the Company of Barbers. The earliest record we have of the swearing in of a master of this Company at the Guildhall is in 1308. The Company of Barber Surgeons received its charter of incorporation in 1462, and long before this time the Company had undertaken the whole routine of the conduct of "anatomies" for the benefit of its members. It is certain that, at the time of the incorporation of the Company, the

whole matter was so perfected that two Masters of Anatomy and two Stewards of Anatomy were appointed by the Company. It is somewhat humiliating to reflect that, despite this early regulation of the study in London, no major English contribution was made to the science until a century after the time of Vesalius, when an English student, who had learned his craft at Padua, revolutionized the subject by making real to all men the fact of the circulation of the blood.

The fostering of the science of human anatomy by a Corporation in London appears to have effected far less for the progress of knowledge in two centuries than did the fostering care of the Continental Universities in one. The difference appears to have been due to the fact that, in the one case, a knowledge of human anatomy was deemed to be no more than a necessary accomplishment for the members of a craft, while, in the other, the subject was regarded as one of academic importance and therefore an object of scientific research. Even to-day there may be some conflict between those who regard Corporations on the one hand, or Universities on the other, as being bodies best fitted to further advancement of certain subjects of the medical curriculum. This is a question upon which no opinion is offered here: but it cannot be denied that when, in 1540, Henry VIII (XXII, Cap. 12) granted a monopoly in the practice of anatomy to the Company of Barber Surgeons a retrograde step was taken so far as the furtherance of scientific anatomy in England was concerned. By this enactment the bodies of malefactors were made over to the Company for the purpose of public anatomies conducted in the Hall of the Company. No other institution or individuals had the right of dissecting human bodies, for a complete monopoly of dissection and teaching was vested in the Company. Taking advantage of this enactment, the Company, in 1557, made it compulsory for its members to attend these public dissections. Moreover the Company guarded its monopoly with great jealousy, and prosecuted such medical men as attempted to practise dissection, or to teach anatomy, without their authority, or outside their precincts. Even the great William Cheselden was proceeded against by the Company in 1714 for having conducted anatomies elsewhere than in the Common Hall of the Company. Cheselden was reproved by the court and, as the historian of the Company (Young) says, "A less influential man would probably have been fined." This monopoly in anatomy remained vested in the Company of Barber Surgeons until 1745, when the Company of Surgeons split off from the Barbers. The Company of Surgeons now carried on the monopoly and the dedication of the bodies of felons (Henry VIII, XXII, Cap. 12) was transferred to them and, in 1752, an Act was passed to permit such bodies to be taken to the Hall of the Surgeons instead of the Hall of the Barber Surgeons.

The critical year in the legalization of the practice of human dissection and the freedom for the scientific study of human anatomy in England was 1796. In this year, owing to an irregularity in the Act of incorporation, the Company of Surgeons was dissolved. At least twenty years before this date there were formidable rivals to the Corporations in the form of the private schools of anatomy. In 1768 the great school of anatomy associated with the Hunters had been established in Windmill Street. Other schools sprang up in the metropolis and, by the excellence of their teaching, which was infinitely better than anything supplied by the Company of Surgeons, they attracted large numbers of students. But the private schools had no legalized source of supply of subjects, save those that were made over to them from time to time by the Company of Surgeons. And the Company of Surgeons had, as its only legalized source, the bodies of felons available under the Act of Henry VIII. It is obvious that, with the increasing number of students and with the restricted source of supply -and this supply dependent on the act of grace of a corporate body invested with a monopoly—other sources of supply had to be resorted to. It is quite certain that, as far as the London schools are concerned, an irregular supply of cadavera had been instituted as early as 1740. This irregular supply sufficed for the needs of the private schools at the time and it had not yet been exploited to such an extent as to have gained much undesirable notoriety. It was but natural, therefore, that a very real opposition to the reincorporation of the Company of Surgeons, with its ancient monopoly in the legal possession of the cadavera of felons, should have been organized by the private schools in London. The bill for the reincorporation of the Company was, owing largely to the opposition of the private teachers, rejected by Parliament; but in 1800 the Crown granted a charter to the Royal College of Surgeons of London and to this body the nominal monopoly passed. With the incorporation of the Royal College of Surgeons, however, a change of procedure was adopted. The College no longer conducted anatomies, though it still continued to receive the bodies of felons. In order to comply with the law, the body was taken to the Hall of the Company and, after an incision had been made in it, it was made over to one of the recognized schools of anatomy. The monopoly in the conduct of human dissection thus passed out of the hands of the College, but it still retained the monopoly of legalized supply of subjects. Moreover it still remained as the educational and examining body in all things relating to the study of anatomy for the practising surgeon. As such, the College of Surgeons demanded a very definite standard of anatomical knowledge from those students who aspired to its surgical qualifications. In 1821 the College was granted a new charter and, hereafter, it raised the standard of anatomical knowledge demanded from candidates for its surgical diplomas. The standard required of the student was such that it demanded an intimate acquaintance with the structure of the human body such as could only be acquired by repeated and first-hand dissections of the cadaver. The College demanded a standard of knowledge that could not be attained by the medical student from the material legally supplied by the examining body. I would emphasize this point, since to-day we are in danger of reaching the same impasse.

The way the problem was solved by the private schools of anatomy we all know—the dreadful profession of the body-snatcher, or resurrection-man, came into being. business of procuring subjects for dissection by robbing the grave was carried on in a small way probably from the beginning of the eighteenth century. In 1777 three persons had been brought to trial and had been condemned to fine and public whipping for removing a body from the grave. But no special legal question seems to have been raised at the trial, nor does the purpose for which the body was removed seem to have been considered. As a matter of fact, the act of stealing a cadaver was no offence in law, since there was no property in a dead body. The only enactment that applied in such a case was the Act of James I (Jac. I, Cap. 12) that made it a felony to remove a body from a sepulchre for the purpose of the practice of witchcraft. However, ten years later, in the case of Rex v. Lynn, tried in the Court of King's Bench, it was ruled that the taking of a body from the grave was "contra bonos mores" and an offence at common law. The actual removal of the body from the place of sepulchre was therefore constituted a punishable offence, even if the cerements were not stolen, or the monument or sepulchre damaged, or if the body were removed for purposes other than witchcraft. Lynn was convicted, but he was punished only by the infliction of a small fine, since his was the first case that had come before a higher court. By this decision the occupation of the bodysnatchers became more hazardous, for now they had more to fear from nocturnal conflicts with night watchmen and violence from organized graveyard patrols.

In 1828 John Davies, a medical student, and William Blundell, were proceeded against at Lancaster Assizes. The prosecution was conducted under fourteen counts in order to cover all possible contingencies. In the end they were convicted and fined for "having in their possession a body, knowing it to have been disinterred."

By the decision of 1788 the activities of the bodysnatchers were brought under the law and now, in 1828, the teachers of anatomy, who were well aware that their subjects had been disinterred, were liable to penalties for being

in possession of the bodies.

In London, therefore, in 1828 matters had reached a very definite crisis. The Royal College of Surgeons was demanding a higher standard of anatomical knowledge than could be attained to by the student dependent upon the legalized supply of subjects. The supply of subjects was freely augmented by regular traffic between the schools and the body-snatchers. The activities of both body-snatchers and teachers of anatomy were now carried on at the risk of legal punishment. And moreover, the business of the bodysnatchers had become a very grave public scandal. result was that the House of Commons appointed, in this year, a select committee "to enquire into the manner of obtaining subjects for dissection in schools of anatomy." But while the select committee was deliberating in London, matters had moved much further in Edinburgh. The celebrated Edinburgh School of Anatomy (held by Monro primus, secundus, and tertius from 1720-1846) attracted students from all parts of the world. There was an early and a large demand for subjects for dissection; and the fact that bodies were being obtained by the robbery of burial grounds was brought to the notice of the College of Surgeons of Edinburgh as early as 1711. By 1806 Edinburgh had outrun the supply obtainable from its local body-snatchers and was freely importing cadavera from By December 24, 1828—whilst the select committee was deliberating in London-the attention of the whole world was focused upon the business by the revelation of the Burke and Hare murders. The subject ceased to be an academic one. The Lancet, in its editorial column, advocated that all Schools of Anatomy should be immediately closed and should remain closed until satisfactory regulating enactments for the supply of subjects had been put into force. On January 28, 1829, 20,000 people witnessed the execution of William Burke in Edinburgh: on March 21 of the same year Mr. Henry Warburton, a timber

merchant and member of Parliament for Bridport, obtained the first reading of his "Bill for preventing the unlawful disinterment of human bodies, and for regulating schools of anatomy." This Bill, among other things, made body-snatching a punishable offence. It made available (under regulations) unclaimed bodies of persons dying in work-houses and hospitals. It made the possession of a licence to practice anatomy obligatory; and it demanded decent Christian burial for all subjects. In its original form it did not repeal the so-called penal clauses of Act 9, Geo. IV, Cap. 31, which enacted that the body of a person convicted of murder should "be dissected or hung in chains, which so-ever of the two the court shall order."

The Bill was strongly opposed by those who pointed out that the poor and friendless were placed upon the same footing as condemned murderers: by those who saw in the Bill a threat to the teaching of anatomy by reason of a possibly restricted supply of subjects. And it was opposed, to most purpose, by the Royal College of Surgeons, jealous of its nominal, but long-since ineffectual, monopoly. The Bill passed the Commons but was rejected by the Lords on June 5, 1829. It was to have been reintroduced to the Lords in the following year by Lord Calthorpe, but, fearing a dissolution of Parliament, it was abandoned. Apparently the shock produced by the Burke and Hare murders had begun to wear off so far London was concerned. Another lesson was needed to bring public opinion into such a state that a change in the law was popularly demanded. November 5, 1831, the shock came. John Bishop and James May were arrested in the act of attempting to sell the body of a youth, who had obviously been murdered, to Mr. Partridge, demonstrator at King's College. Burking had come to London! The murder was actually committed by Bishop and a man named Wiliams. These two men were tried and found guilty; and they were executed on December 5, 1831. Ten days after the execution Mr. Warburton again introduced his Bill and extended its scope to Ireland. Again the Bill received much opposition, but it finally became law on August 1, 1832. In the Act as finally passed (2 x 3 William IV, Cap. 75) all references to body-snatching being made a punishable offence were omitted. The fact that the death certificate and declaration had to be received with the body by the licensee defeated the activities of the grave-robber and the dreadful business came to an end. By Section 16 of the Act, the "penal" clause (Act 9, Geo. IV, Cap. 31) was repealed and dissection was no longer made a part of the death sentence for murder. It was greatly feared by many that the repeal of this "penal" clause by Mr. Warburton's Bill would lead to an increase in the crime of murder; and this was one of the reasons for the rejection of the Bill by the Lords in 1829. This fear was not realized and two years later (3 & 4 William IV, Cap. 26) the provision for hanging in chains after execution was also repealed.

Other provisions of the Act of 1832 were then discussed by the speaker, and attention was drawn to certain conditions of recent times which were operating towards rendering the Act less efficient. Attention was called to the fact that to-day, as in 1800, examining bodies (such as the University) were postulating a freedom for conducting dissections by the student that was increasingly difficult to

attain under the provisions of the Act.