An appeal to the public and to the legislature on the necessity of affording dead bodies to the schools of anatomy by legislative enactment / by William Mackenzie.

AN

APPEAL

TO

THE PUBLIC

AND TO

THE LEGISLATURE,

ON THE NECESSITY OF

AFFORDING DEAD BODIES

TO THE

SCHOOLS OF ANATOMY,

BY

LEGISLATIVE ENACTMENT.

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Glasgow:

ROBERTSON & ATKINSON,

ADAM BLACK, AND M'LACHLAN & STEWART, EDINBURGH;
T. & G. UNDERWOOD, J. CHASE, BURGESS & HILL,
AND J. ANDERSON, LONDON;
AND ALL MEDICAL BOOKSELLERS.

1824.

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W. LANG, PRINTER, 62, BELL-STREET.

AN APPEAL

&c.

MEDICINE, besides the curing of diseases, has two other great objects in view; namely, the preservation of health, and the solution of a numerous set of important questions connected with the administration of justice.

In the *first* case, the medical practitioner takes his place by the side of the legislator, to point out the necessary regulations for the preservation of the public health, to afford a variety of information regarding the causes which affect population, regarding the physical education of children, the healthfulness of different countries and districts, the wholesomeness of different kinds of food, the means of preserving the moral effectiveness of fleets and armies, the establishment and management of hospitals, and the construction and economy of prisons,

to indicate the means by which pestilential diseases are to be extirpated, and the precautions by which new contagions are to be averted from the shores of his country.

In the *second* case, the medical practitioner is called into the courts of justice, not so much in the character of a witness, as in that of a judge; for it is in a great measure according to his opinion, that many and weighty questions in the administration of civil and criminal law, are decided. These questions respect marriage and divorce, pregnancy, delivery and infanticide; the duration of life; the proofs of insanity; and the crimes of rape, homicide, and murder; and are often of such a nature, that without the aid of medical evidence, they would remain obscure or entirely unanswerable.

Such being the vast extent of medicine, even when regarded independently of its chief object, which undoubtedly is the curing of diseases, some idea may be formed of its importance in a land of civilization and freedom—some idea may be formed of the dignity and high responsibility of the medical profession, and of the necessity of laying well the ground-work upon which a KNOWLEDGE OF MEDICINE is to be founded. If that ground-work, which is an acquaintance with the human structure, has ever in this country been difficult of attainment, and now from a complication of causes, has become almost quite unattainable, it is time that a SOLEMN APPEAL should be made to the PUBLIC and to the LEGISLATURE, so that being fully furnished with the

facts of the case, they may adopt such measures as shall secure to those who are to embrace the medical profession, the opportunities necessary for qualifying themselves for the discharge of its difficult and important duties. Such an appeal is so much the more necessary, as a remedy for the present shackled and depressed state of anatomy, can be drawn only from the public, and be brought into activity only by legislative interference.

The human body is a living machine, consisting of a great variety of parts, exceedingly complicated, and liable both from many external, and from many internal causes, to become disordered. This machine differs from all the contrivances of man, in this remarkable particular, that it possesses in a very considerable degree, a power of self-restoration; so that when accident deranges from without, or when disease springs up from within, there is an immediate attempt made by the living powers of the body itself, to bring matters back to their original state and to their natural play. But in many cases, the accidental disorder is so extensive, or the internal disease is so general and overpowering, that the self-restoring principle is unable to effect a return to health, and the individual, often after the endurance of severe and long-continued suffering, is relieved only by death.

By the slowly accumulated experience of ages, it has been discovered, that the self-restoring power may often be assisted by human inventions; for instance, that when

the bones of a limb are broken, by laying and keeping the limb in a particular position, the restoration shall be so perfect, that the limb shall retain its natural length, and shape, and use, while had it been left without artificial adaptation and support, it might have mended shortened, and crooked, and lame.

The blood, the vehicle of life, is propelled with great force from the heart, so that it rapidly travels through the body in a set of tubes, called arteries, of which if one of the more considerable be opened, the blood gushes in a stream from the wound, and in a very little time life is extinguished. This is what happens every day in the accidents of common life, and three-fourths of those who die in battle perish thus from loss of blood. But if a skilful man be at hand, who knows the course, the depth, and the exact situation of these tubes, he applies his finger over the wounded artery, lays it bare, and tying it up with a bit of thread, arrests the flow of blood, and saves the life.

Those who have seen a man tormented with the stone, need no description of his agony from me; to those who have not, no description of mine can adequately paint the excruciating sufferings, to which those who are afflicted with that malady are doomed to submit. In a fit of the stone, the slightest change of position is dreadful. Getting in or out of a bed is a trial so severe, that often the resolution fails, and the poor sufferer has not courage to move, but falls down in a state of exhaustion

from the anguish he has borne. From so dreadful a disease, is there any mode of relief? There is; but it is a mode altogether artificial—the self-restoring principle can here do nothing—but the surgeon can remove, with quick and dextrous hand, the cause of all this pain. But if that hand be uninformed, if it has not previously, on the dead body, dissected often and carefully the parts to be divided, and the parts to be left untouched, if it has not often repeated on the dead, the operation which it has now to perform upon the living, it cannot be trusted, and the sufferer must be left to pine by turns, and by turns to madden again, till his frame is worn out, and at length he expires.

The three instances which I have selected, are sufficient to illustrate the nature of the HEALING ART, and to show its absolute dependence on a knowledge of the human structure. The healing art is plainly a handicraft, of which the subject is the living body. If the handicraftsman know the structure of the body, he will operate upon it dextrously and to much good purpose, but if he know it not, he will mangle and abuse it. The art of surgery differs from other handicrafts only in this, that while they are exercised upon dead matter, on stone, and wood, and iron, this is exercised upon the moving and sensible body of man. When the mechanic errs in working, as from inexperience or carelessness he may sometimes do, he throws the spoiled materials from him, and coolly resumes his labour upon others; but when the bungler in surgery errs, his hand trembles, and his heart fails, he

hears the frightful cries of his victim, and sometimes sees him expire under his hand. The error he has committed is irretrievable; he has destroyed a fellow-creature.

It is true that a living being and a mere mechanical engine are not exactly upon a par; and that a medical practitioner may sometimes seem to set the one to rights, although he knows little of its structure, while any attempt to mend the other by a person who had not previously taken the engine to pieces, and examined its several parts, would be at once pronounced a proof of folly and presumption. That a medical practitioner may sometimes contribute to rectify a disorder, although, from his ignorance of anatomy, he may not be able to tell what part of the body appears to be affected, and much less what is the intimate structure of that part, and what its relations to the parts around it, is a fact which depends entirely on the constant tendency in diseased nature to restore itself. This constitutes a striking difference between a disordered living body and a disordered mechanical engine; and upon this difference, is built the different success which occasionally attends the medical practitioner ignorant of anatomy, and the artist who should pretend to mend a machine, the structure of which he had never studied. Such an artist men would treat at once as a knave; but so unreflecting is the world, that such a medical practitioner is still treated as honest, and is even not unfrequently regarded, by those who happen from the excellence of their constitution to escape out of his hands alive, as a man of no inconsiderable skill.

If the productions of art possessed the same advantage with the living body, if when the movements of a machine were by any accident impeded, it had within itself the power of throwing out the obstructing cause, if when a spring chanced to break, it could solder itself and heal spontaneously, we might then see men rise to eminence as mechanics, just as we often see men rise to eminence as medical practitioners, without understanding the principles of their art, and without knowing one wheel or lever from another of the particular engine which they treated. But as no work of human art is endowed with the faculty of self-restoration, the artist is under the indispensible necessity of understanding the structure of his subject, and the laws by which it acts. Those who apply to the art of medicine ought to follow, and ought not merely to be permitted, but ought to be obliged by law to follow the same plan, and to study the human structure and economy with as much assiduity and minuteness, as if, like the watchmaker, they had nothing to depend upon but their knowledge.

There is one branch of the healing art, which imperiously demands from him who is to engage in it, exactly the same kind of knowledge of the human frame, as the mechanical arts demand from those who are to engage in them; I mean the practice of surgery. The setting of a broken bone, the reducing of a dislocated joint, the stemming of the tide of a divided blood-vessel, the releasing of a portion of protruding and strictured intestine, the cutting out of a stone from the bladder, the

raising of a piece of depressed skull, the treatment of a gun-shot wound, the removal of a shattered or mortified limb, these are things about which no cunning will be of any use but the cunning learned by practical exercises in the schools of anatomy. If the surgeon is acquainted with the structure of the body from careful and repeated examination with his own hands, he will proceed in such cases with a calm and confident assurance that he can meet only with parts which he knows, and that the whole object of his practice is to bring these parts back, as far as is possible, to certain relations with which he is perfectly acquainted, and to that harmonious action, the mechanism of which he perfectly understands. If his knowledge of anatomy has not been derived from actual dissection, but amounts merely to the vague recollections which remain of what he had seen and heard at public lectures, being in fact unacquainted with the natural position of the parts of the body, how can he judge of the degree of their derangement, and how can he ascertain that his reduction of them is complete? Unacquainted with the relations between the muscles, arteries and nerves of a limb, a knowledge of which can be obtained in no other way than by repeated dissections, how shall he avoid the muscles and nerves, and put down his finger upon the bleeding artery? Knowing no more of the anatomy of the parts concerned in the operation for stone, than what he has gathered from the demonstrations of another person, or from seeing a preparation of the bladder, separated from all the parts with which it was connected, how else can that operation be regarded

in his hands, than as a hazardous and desperate tampering with the life of his fellow-creature?

Indeed, the necessity of anatomical knowledge to the surgeon is so plain, that it is sufficient only to know what surgery and anatomy mean, to see that they are inseparably linked together, and that a man might as well talk of running a race and winning it, whose limbs were struck with palsy, as of going a single step into a sound knowledge of surgery, without a previous practical acquaintance with anatomy.

I say *practical acquaintance;* for there is no error more fatal to the progress of that science, nor more calculated to satisfy the minds of students with a worse than imperfect knowledge of this ground-work of the healing art, than the notion that anatomy may be learned by an exercise of the sense of sight alone; or in other words, by viewing the dissections made by others, attending public demonstrations in theatres and colleges, reading books, and looking at plates and imitations of the body in wax and plaster. These are all useful as auxiliaries, but they are quite insufficient to convey that practical knowledge of the structure of the body, which the surgeon in particular requires. The exercise of several of the senses, and above all of that of touch, is absolutely necessary to the knowledge of what has been termed surgical or relative anatomy. The student must bring into view the parts of the dead body which he is studying, with the very hand which is afterwards to divide and separate them

in his operations on the living: he must meditate for hours and for days over the dissection he has made, displacing and replacing the different muscles, arteries and nerves, many times over, before he can impress upon his mind an accurate idea of their structure, their situation, and their mutual connexions.

Even supposing then that an ample provision of dead bodies were made for the teachers of anatomy, on which to perform their public demonstrations, there would remain to be obtained a still more necessary provision, namely, for the dissections to be performed by students individually. The lectures and demonstrations of teachers of anatomy ought to be regarded as merely preparatory to the examination of the dead body by each student, serving to lay before him a general and rapid survey of what he ought to study with pains and minuteness for himself, exciting his curiosity for more particular information, and pointing out to him, amidst the multiplicity of parts, those which being the most important, ought to fix his deepest attention.

Which, even, of the easiest of the common arts could we expect a person to acquire, were he taught by the sense of sight only? Could we expect a man to become a tolerable carpenter, by having heard some courses of lectures on carpentry, illustrated by specimens of that art? However minutely these specimens were described, and however dextrously the lecturer himself might perform the manipulations by which they were fashioned,

unless the scholar had actual opportunities of working, and of educating his hands to his business, by repeated trials upon the materials of his trade, his productions would be clumsy and imperfect. And shall we expect one of the most difficult of all the arts to be attainable without the like opportunities of practical improvement? Shall those who are to practise the most important of all the arts, be left to follow a plan of education so palpably imperfect?

Many of the common arts are extremely difficult to be acquired: yet all of them are founded upon the laws of the phenomena of inanimate matter. Surgery, on the other hand, whilst its operations are partly founded on these laws, and are attended by the same kind of difficulties as those of the common arts, presents a new set of difficulties, the nature and the amount of which are scarcely at all appreciable by any other than the surgeon himself. These new difficulties arise from this, that surgery is founded not only on the laws which regulate the phenomena of inanimate matter, but also on the peculiar laws of organized or living bodies. How easy would it be to cut down upon an artery, were not caution forced upon the surgeon, by the consideration, that it is with a tube conveying a tide of living blood that he has to do, and that if in exposing that tube, he cuts across a muscle, or divides any considerable nerve, he may leave his patient lame for life; or if unwarily he opens the tube itself, in a few seconds his patient may expire from loss of blood!

It must be evident, that it would be a very great advantage in acquiring a knowledge of operative surgery, if its peculiar difficulties could be set aside for a time, and a certain practice and dexterity acquired, without having the dangers and the complication of obstacles to encounter, which meet the surgeon when he attempts the exercise of this art upon moving and sensible matter. This great advantage can be gained, only by repeating the operations of surgery on the dead subject. If opportunities were permitted for doing so, the performance of every operation *once* upon the dead body, before attempting it on the living, could be regarded as no more than a pitiful precaution against the self-accusation which would rise in the surgeon's mind, when he considered, that to do upon the living, what he had not previously tried upon the dead, must be unjustifiable temerity and cruelty. Yet to repeat the chief operations of surgery even once on the dead body, is what has fallen to the lot of comparatively few who have become surgeons in this country for many years back, and is at present still more than ever beyond reach.

To derive improvement from exercises of this kind, they would require to be repeated frequently and methodically. The parts to be operated on, ought first of all to be dissected on one subject, or on one side of the body, then the operation ought to be performed on another subject, or on the other side, and lastly, the parts operated upon ought to be dissected, that the faults

which had been committed in the operation might be ascertained.

If no adequate opportunities are provided for exercises of this kind, only one other mode will remain, by which surgeons can acquire dexterity in their art, and it is one which I shudder to mention. It will be by practice on the living bodies of the poor. The rich will always have it in their power to select the surgeon who has enjoyed opportunities of studying his profession as it ought to be studied, or has already signalized himself by his success. But the poor, upon whom operations are rarely performed at their own houses, will find themselves placed on their admission into public hospitals, under the care of young men, who will be forced (it is to be feared) from the blind illiberality of the age, to learn upon them, what they ought to have learned upon the dead; and who will seek to become surgeons of such institutions, for the very purpose of acquiring that dexterity which will enable them to operate upon others with better success. No doubt there is a manual address in the performance of surgical operations, which actual practice only can give; but it is evident that practice on the living ought, from the very first, to be under the guidance of a clear and well-understood system of rules, which the surgeon has already put to the test, as far as it is possible, on the dead body.

Some surgical operations are no doubt simple enough, but those which are difficult, if attempted by one who

had not for a time associated with the dead, and on them repeated again and again, every operation which he ever meant to do upon the living, would probably be about as imperfect as the productions of a person, who, for the first time took the pencil in his hand, and whose whole knowledge of painting had been derived from hearing some courses of academical lectures. I can conceive nothing more cruel—nothing more truly unlawful, than to flatter on a sick man to that courage which is necessary for undergoing a severe and dangerous operation, and then to take up the knife, with the hand which never took it up by the side of the dead subject. Is it to be wondered at, if the surgeon's resolution is appalled, when the terrible thought rises before his mind, that his patient's life now depends on the mere chance of escaping from his unskilfulness, and that in the very operation which he has recommended as a means of relief, he is about to expose a fellow-creature to new and instant dangers, against which, a practical knowledge of anatomy only could have provided?

But upon whose head, let me ask, is the guilt of this horrid sacrifice to ignorance? The surgeon is but the officiator. The worshippers of ignorance, who surround him, and who force him on, are those who have impeded, and who would yet more impede the study of anatomy—those, who in order to give an idle *protection to the dead*, would not hesitate to render the healing art little better than a cruel mockery of the distressed. If it be true, that he who wilfully impedes assistance to

the wretch who is expiring from a draught of poison, is equally guilty with him who mingled it, and with him who gave it, then he who by the least unnecessary action, or by the least unnecessary word, opposes the study of anatomy, is neither more nor less than a murderer. By his opposition, he, as it were, poisons the balm of medicine, which promised to give a little ease to horrid suffering—he puts out his foot to make the surgeon stumble, who is running with help to the wounded and the dying.

Would to God that the eyes of the public were open to the consequences of their idolatry of the dead! They would then spurn with contempt, the plans of those ignorant men, who have vapoured over their midnight bowl, that they would put an end to anatomy, blind to the widely disastrous effects, which their plans, if carried on, must speedily produce on the best and dearest interests of humanity. Instead of seeking to degrade the anatomist, or to disturb him in his pursuits, the public, if they rightly understood the matter, and could for a moment listen to reason, not to passion, would be eager to honour and to assist a man, who for the sake of relieving the sufferings of his fellow-creatures, can take up his abode with death and corruption, make the most loathsome objects on which eye can ever look his familiar associates, and even risk his life in acquiring that knowledge which is to enable him to preserve and restore the health of those who hate and persecute him.

The schools of anatomy in Great Britain have never been supplied with a sufficient number of dead bodies to fulfil or nearly to fulfil the important purposes already explained. The number of murderers, whose dead bodies have been given for dissection, has never been sufficient to supply even the public professors of anatomy, much less the private teachers; and upon the whole, the making of dissection a punishment has been much more injurious to the interests of anatomy than beneficial. This practice has naturally excited in the minds of the vulgar, a horror at the examination of the body after death, under any circumstances; and for this reason, if any thing is to be done by the legislature for the promotion of anatomy, the clause of our criminal code by which dissection is made a punishment, and the anatomist degraded below the common executioner, ought in the first place to be repealed.

The only other means by which the schools of anatomy have been supplied with dead bodies, has been by exhumation. Against this practice, there has of late years arisen such a clamour, and such means have been adopted to prevent it from being continued, that dissection for students is now altogether unattainable, and even the teachers of anatomy find it very difficult to continue their public lectures.

An increasing desire on the part of medical students to be acquainted with anatomy, has of late years naturally increased the number of teachers, and the demand for

dead bodies. Unfortunately some of these teachers have been careless with regard to the modes which they adopted for procuring subjects. Exposures have consequently taken place, and by these the public attention has been roused. The newspapers have lent themselves, with a few honourable exceptions, to be vehicles of the most foul and perfidious defamation of anatomists. Even judges on the bench have descended to use a vindictive and vituperative language, ill becoming their place, and their supposed knowledge of human affairs. All these causes have conspired to create a jealousy of anatomy, which it never merited; and ultimately to produce associations for guarding the places of interment, and even avowedly for putting the study of anatomy down.

Exhumation, it is true, was quite insufficient to answer the purpose for which it was had recourse to. Yet I am afraid that those who have attempted to abolish it, have considered the subject but on one side, weighing the disadvantages of the practice, without thinking of its uses.

To discover whether any human action be right or wrong, we have to inquire into its tendency to promote or diminish the general happiness. If the question be, whether the exhumation of dead bodies be right or wrong, we inquire into the tendency of such a practice to the public advantage or inconvenience. If the question be, whether a man who removes dead bodies from the place of interment, ought to be punished or protected, we inquire into his design, whether his conduct

sprang from a desire to do a wanton outrage, or from a wish to qualify himself and others for the practice of a useful and honourable profession. The *whole* of the tendency of any action must, as far as it is possible, be investigated; for there are few human actions which are not followed both by good and by bad consequences; and in order to discover whether such actions are right or wrong, the whole of the good consequences must be fairly weighed against the whole of the bad consequences. Carelessness and feebleness of mind would, no doubt, gladly escape from the tiresome discussion of opposing and entangled interests, but unless the key of moral actions just explained be put to use, there is a danger that simplicity will be imposed on in its judgments, and industry and virtue in many cases discouraged and trampled on by the prejudiced and the interested.

The bad consequences of exhumation are,

1. The distress undergone by the friends of the dead person taken away.

2. The violation of property, in disturbing the grave and the apparatus of burial.

3. The shock given to the feelings of the public, by the discovery that a dead body has been torn from the place of sepulture, to which it had been solemnly consigned, and by the suspicion that the same has happened, or may happen to others.

4. The apology which this discovery affords to the mob for riots, by which lives and property are indiscriminately exposed to danger.

5. The additional expenses incident to protecting the places of burial, which in many cases will be called for, when they can be but ill afforded.

6. The dangers to which those are exposed who remove dead bodies for the purposes of anatomy. They are frequently students of medicine; and have often been seriously injured, and sometimes murdered by grave-watchers.

7. The dangers to which teachers and students of anatomy are exposed by this system, from dissecting bodies in a putrid state.

8. The frequent and inconvenient interruptions to the studies of anatomists from detections of exhumation, and the harassments and expenses to which they are thereby exposed.

9. The indifference towards the adoption of legal and sufficient means for supplying the schools of anatomy, which is produced by the general belief that the system of exhumation, even under every mode of interruption, is still sufficient for that purpose.

These are evil consequences of the system of exhuma-

tion which are undeniable; and which could find their palliation, only in an overwhelming counter-weight of advantages, attainable only by that laborious investigation which is termed dissection, and which presumes to the dissector the possession of the dead body. The system of exhumation was altogether inadequate for the complete supply of the schools of anatomy, yet as every dead body stolen and dissected, by the instruction which it became the means of affording, carried with it the health and the lives of thousands, I judge that those who have associated for the purpose of depriving teachers and students of the scanty supply of dead bodies which this practice afforded, without attempting, or previouly proposing any substitute, have acted precipitately and unjustly, and especially that those of the better ranks are to blame, who have sanctioned such associations, which, when first proposed, would, but for their patronage and pecuniary support, have in all probability sunk into the nothingness of a mere drunken exasperation.

It is well known that in London, the procuring of dead bodies is still more difficult than it is in Scotland; so that it has become, beyond contradiction, impossible for students of medicine to acquire a sufficient practical knowledge of anatomy, in any part of Great Britain, except at an expense of time and money amounting to a prohibition. The LEGISLATURE, then, is loudly called upon by the circumstances of the times, to bring forward a measure by which the schools of anatomy shall be sup-

plied at a reasonable rate, without having longer to encounter the perplexities, dangers, and insufficiencies, under which they have laboured for so great a length of time.

Before proceeding to explain the only public measure which appears capable of answering this important object, it may be proper to state, in a general way, the number of dead bodies which would be annually required for the practical teaching of anatomy, in Great Britain and Ireland.

I shall suppose the period of study to be three years, and that in each of these years, a careful dissection is to be made of all the most important parts of the body. This will require one dead body for the muscles, a second for the blood-vessels, and a third for the nerves. The viscera may be studied partly in one, and partly in the other two of these three dead bodies. Now, in the course of three years, two students will require nine dead bodies, to which we shall add a tenth for the repetition of the principal surgical operations. Such I consider as the most moderate computation which ought to be admitted; although it cannot be denied, that comparatively few surgeons of the present day, have enjoyed opportunities of carrying their anatomical studies even to the length here proposed. Double the number of dead bodies I have here stated would, I think, be little enough for the acquirement even of a moderate knowledge of anatomy; but, at least, evidence of the student's having

carefully dissected five dead bodies should be produced, before the granting of any diploma in medicine or surgery.

Supposing the number of students in London to be 400, the number of dead bodies required annually in the metropolis would be 600. Add dead bodies for 200 students at Edinburgh, 200 at Dublin, and 100 at Glasgow, the total number of dead bodies required annually in the empire for preliminary anatomical instruction, would be 1350, to which must still be added 300 dead bodies annually, for the repetition of surgical operations, making a total of 1650 dead bodies annually, for the use of students alone. Supposing farther that there are 30 teachers of anatomy in the empire, each of them will require for his public demonstrations, on an average, 10 dead bodies annually, making an addition of 300, or a total of 1950. By the dedication then of 2000 dead bodies annually to the purposes of anatomy, the health and happiness of twenty-one millions of men may be very materially promoted. And though from the novelty of such a calculation, the number of dead bodies here stated may sound as if immense, yet when compared with an annual mortality of 500,000, it will appear as almost nothing.*

Nor will the hospitals, infirmaries, work-houses, poor-

* The above calculation, along with the following plan, and most of the reasonings in the preceding pages, I published in 1820, in the Quarterly Journal of Foreign Medicine and Surgery.

houses, foundling-houses, houses of correction and prisons, find any difficulty in furnishing the number of dead bodies required; and that without any extraordinary sacrifice of feeling on the part of the friends and relatives of the deceased. The annual number required, according to our calculation, is in London, 766; in Edinburgh, 383; in Dublin, 383; and in Glasgow, 191. Now, granting that Edinburgh and Glasgow could with difficulty supply their respective numbers, they could be furnished from Dublin and London, or even from either of these towns alone.* There is no reason to suppose that the number of dead bodies appropriated to anatomical purposes in Great Britain and Ireland, has ever amounted to 300 annually. How easily could this small number be supplied! How much good could be effected even by this small provision, furnished with regularity!

As the dead bodies for anatomical purposes can be derived in sufficient numbers only from public institutions, it is necessary that the schools of anatomy be in large towns; yet these schools should be in some measure removed from public view, and ought never to be suffered within the walls of an hospital. Where life has come to seek for preservation, the neighbourhood of corrupting corpses must ever be highly offensive, both morally and physically prejudicial to the recovery of the sick, and hurtful to the usefulness of charitable institutions. The greatest decency, and even a certain secresy

* The annual mortality of London, is about 30,000.

ought to be employed in conveying the dead bodies from the hospitals to the schools of anatomy. No dead body ought to be allowed to remain in the schools of anatomy beyond a certain number of days, after which, the remains of the dead ought to be decently interred.

All this, it is evident, can be effected only by the interference of the legislature; and as for many years it has been carried on with regularity in most of the other countries of Europe, it is to be hoped that the same advantages will soon be afforded to the profession in Britain. Let it not be supposed for an instant, that by what the members of the medical profession would judge a sufficient and just liberty of dissecting dead bodies, any thing should be proposed which could outrage public decency, or even the respect due to the dead. Dead bodies must be procured, or anatomy must cease, and medicine be deprived of its only true foundation; and the only question is, how are dead bodies to be obtained, so as to give the least possible offence to the public feelings, and to the rights of individuals? The anatomist has indeed been exposed to the calumnies of those miserable hirelings, who for a paltry shilling, to be won by pleasing the palates of the mob, would sell the last lingering spark of truth. But while he is a stranger to those superstitious fears which haunt the common mind, the anatomist approaches the dead body of his fellow-man with the feeling, that he himself must one day be stretched out in the same attitude of insensibility. His office too, consists in no common action either of the mind or of

the hand. In scrutinizing the fabric of organization, he meets at every step of his intimate and toilsome search, the proofs of design and of wisdom; nor can this thought ever quit his mind, that his inquiries are not those of a vain and speculative curiosity, but that the end of them all is THE RELIEF OF SUFFERING HUMANITY. Whatever may be the feelings or motives of those who impede the study of anatomy, the unavoidable consequence of their interference is THE INCREASE OF HUMAN PAIN AND MISERY.

France, and the different governments of Italy and Germany have long since known and acknowledged it to be their duty, to give a dignified and definite support to the study of anatomy. Britain has winked at its exercise. The cultivators of anatomy are furnished over the whole continent, with safe asylums at the public expense, where they may pursue their investigations on the dead bodies furnished to them by legal and exact regulations. In Britain alone, anatomy must be carried on by stealth, and its cultivators render themselves amenable to the laws of their country, by robbing the sepulchres of the dead.

Perhaps some may be disposed to reply to this appeal, that notwithstanding the opportunities of dissecting dead bodies being more limited in Britain than in any other civilized country, yet we have to boast of some of the most skilful anatomists and surgeons who have appeared in the world. The names of the Monroes, of the Hunters, of Baillie, of Abernethy, of Cooper, of the

Bells, of Barclay, are cited as proofs, not of a mere equality, but of a superiority in anatomical skill, above every other nation in Europe. But to what cause, I would ask, is the professional excellence of these celebrated men to be attributed, unless to this, that from peculiar circumstances, they have been enabled to engage more freely than others in anatomical researches? All those whose names are above enumerated, have been employed in the teaching of anatomy, and have thus had opportunities of prosecuting that science to a degree which is at present totally beyond the reach even of teachers. But it is not the teachers of anatomy only who ought to be intimately acquainted with the structure of the body. Every one whose intention it is to practise medicine, and especially surgery, ought to possess a thorough anatomical knowledge. Those who teach anatomy, are forced indeed to take the only right method of acquiring a knowledge of that science; that is to say, they make it their first object to see and handle the things with which they require to be acquainted, and their second object to know them. To begin by affecting to know these same things, by having read about them, and heard them described, and then to try to see and touch them, which has been the common method of pursuing the study of anatomy, is palpably absurd, and can never be attended with success.

The following are the heads of a PLAN FOR PROMOTING THE PRACTICAL STUDY OF ANATOMY, which I have already communicated to several distinguished members of the

legislature, and which I would earnestly press on the consideration of my professional brethren, and of all the friends of science and humanity.

I. That the clause of our criminal code, by which the examination of the dead body is made part of the punishment for murder, be repealed.

II. That the exhumation of dead bodies be punishable as felony.

III. That no diploma in medicine or surgery be granted by any Faculty, College, or University, except to those persons who shall produce undoubted evidence, of their having carefully dissected, at least five human bodies.

IV. That in each of the hospitals, infirmaries, work-houses, poor-houses, foundling-houses, houses of correction, and prisons of London, Edinburgh, Glasgow, and Dublin, and, if need be, of all other towns in Great Britain and Ireland, an apartment be appointed for the reception of the bodies of all persons dying in the said hospitals, infirmaries, work-houses, poor-houses, foundling-houses, houses of correction, and prisons, unclaimable by immediate relatives, or whose relatives decline to defray the expenses of interment, which expenses shall be estimated at the rate of twenty shillings.

V. That the bodies of all persons dying in the said

towns, and, if need be, in all other towns, and also in country parishes, unclaimable by immediate relatives, or whose relatives decline to defray the expenses of interment, shall be conveyed to a mort-house appointed in the said towns for their reception.

VI. That no dead body shall be delivered from any hospital, infirmary, work-house, poor-house, foundling-house, house of correction, prison, or mort-house, for anatomical purposes, except upon the requisition of a Member of the Royal College of Physicians, or of Surgeons, of London, Edinburgh, or Dublin, or of the Faculty of Physicians and Surgeons of Glasgow, and upon the payment of twenty shillings into the hands of the Treasurer of the hospital, infirmary, work-house, poor-house, house of correction, or prison, or other officer appointed to receive the same.

VII. That no dead body shall be conveyed from an hospital, infirmary, work-house, poor-house, foundling-house, house of correction, prison, or mort-house, to a school of anatomy, except in a covered bier, and between the hours of four and six, *a. m.*

VIII. That after the expiration of twenty-eight days, an officer appointed for this purpose, in each of the four towns above-mentioned, shall cause the remains of the dead to be placed in a coffin, removed from the school of anatomy, where the dead body has been examined, to the mort-house of the town, and decently interred.

IX. That the expenses attending the execution of these regulations, be defrayed out of the fees paid by teachers and students of anatomy, on receiving dead bodies from the hospitals, infirmaries, work-houses, poor-houses, foundling-houses, houses of correction, prisons, and mort-houses, which fees, according to the calculation already given, will amount to £2000 annually.

It is evident that this plan can be authorised only by act of parliament. Whatever objections it may be liable to, I am fully persuaded, that it is the only plan capable of accomplishing the desired object; and I am happy to find that it has already met with so able an advocate as Mr. Abernethy.

"If, however, we are disposed thus to labour for the public good, some concession, co-operation, and encouragement on the part of the public, may be by us reasonably expected. Anatomical knowledge is the only foundation on which the structure of medical science can be built. Without this, we should but increase the sufferings of those afflicted with diseases, and endanger their lives. Opportunities of dissection should therefore be afforded to us. The bodies of persons dying in the hospitals abroad, are given to the surgeons for dissection, and even with the acquiescence of the public. In other countries, it is considered that those who are supported by the public, when unable to support themselves, die in its debt, and that their remains may therefore, with justice, be converted to the public use. In England,

however, the indigent who suffer from illness and injury, are supported and relieved chiefly by the liberality of that benevolence which is so creditable to our national character; and much as I wish for the promotion of medical knowledge, I should be sorry if the bodies of the poor were to be considered as public property, without reserve, in our own country." "Yet, if the directors of hospitals, poor-houses, and prisons, were to establish it as a regulation, that the body of any person dying in those institutions, unclaimable by immediate relatives, should be given to the surgeon of the establishment for dissection, upon his signing an obligation so to dispose of it, as to give no offence to decency or humanity, I am convinced that it would greatly tend to the increase of anatomical knowledge amongst the members of our profession in general, and consequently to the public good."*

It has been objected to the plan for supplying the schools of anatomy already explained, that it would be the means of emptying the hospitals. This, however, it has not done in other countries; and even should it have that effect in any degree, it would send from the hospitals only those who ought not to be there, those who are able to pay for medical attendance at their own houses, and who notoriously occupy many of the beds of our hospitals, to the exclusion of those whose indigence and distress prevent them from acquiring that

* Hunterian Oration for 1819. By John Abernethy, F. R. S. page 33.

degree of interest with the contributors to our hospitals, which is necessary for obtaining recommendations. It is well known to those who are conversant with the state of the poor in our large towns, that the cases of greatest abjectness and disease are not to be found in the hospitals, but in their own hovels. To such friendless objects of charity, the doors of our hospitals would probably be opened more effectually than ever by the adoption of the proposed plan, and disease alone would be made the passport for admission.

Are there any who would reject the present appeal, on the ground that the truly civilized and polished state of this humane and religious nation forbids such cruel butchery of the human body, as anatomists would wish to be permitted to perpetrate; and that the humane prejudices and natural feelings of the people ought not to be violated? Allow me, in imagination, to convey these persons from the dissecting room, where a single dead body lies under the minute knife of the anatomist, who in his hidden and silent retreat, is making out every little vessel and moving thread which it contains, and out of its very corruption is preparing to instruct perhaps a hundred young and ardent minds, in a knowledge of those facts which are to prove in their hands, the salvation of innumerable lives—let me convey them from a scene which they loath so much and know so ill, to one which they have heard more of, and have loved better—to the battle-field, where thousands of living men, armed with every instrument of cruel death, encounter-

ing thousands, the red and living blood is pouring in torrents, the air is rent with agonizing cries, and in a little hour the ground is covered with weltering corpses. We have seen the day, when Britain, reckoning up the slain, coolly subtracted the number of her own sons whose blood had drenched a foreign soil, and whose bones, stript by the hungry vulture, were left to bleach in the storm. The humane and feeling public received the estimate of slaughter with rapture. It was the estimate of what they had won. The youth, the vigour, and the beauty of the fallen were forgotten. The loud lamentations of the widow, the mother, and the sister, refusing to be comforted, were lost in the deafening cry of victory. The hour was given to madness, and midnight's darkness could not hide the wantonness of mirth and triumph.

Propose the question of the propriety of dedicating to the humane purposes of anatomical instruction, a few, and only a few of the dead bodies of those individuals who expire in the hospitals, changed and worn out by disease, without a relative or a friend to carry them out to the grave, and whose very names are perhaps forgotten; the feeling public slip on the ready mask of tender-heartedness, and raising their hands in well-affected horror at the proposal, threaten with condign punishment, the poor foolish anatomist, who is cursed with an enthusiasm for the relief of human woe, and who foresees, in the researches which he is forbidden to institute, the discovery of a new or a better means of curing or assuaging some excruciating, or some mortal disease.

Thus it is, that men can swallow a camel, but strain most conscientiously at a gnat.

If the end of war, which is the defence of our country, is sufficient once to justify the adoption of a mean so terrible as the destruction of hosts of living men, surely the end of anatomical study, which is the assuagment of human suffering, is ten times sufficient to justify the dissection of the dead!

Could the public and the legislature be but brought duly to appreciate the protracted inconveniences, the painful sufferings, the imperfect cures, too often attended with irremoveable lameness or want of useful power, nay, the undeniable loss of lives, to which particularly those in humble life are doomed, by being obliged to submit the management of their diseases to those who have enjoyed no adequate opportunities of acquiring a knowledge of the human structure, how widely different would be their feelings and conduct towards teachers and students of anatomy! Can it at all compensate even one humble individual, doomed to long-continued suffering or incurable lameness, that he is not so much the victim of his surgeon's ignorance, as of an idolatrous respect for the dead, which barred that surgeon from acquiring a knowledge of his profession? Who is there, who for a moment would seriously counter-weigh all the advantages which the system of protecting the dead and interrupting anatomical study, can ever produce, were it continued even for ages, against the

loss of a single father of a family, from the ignorance of his surgeon—much less counter-weigh those advantages against the vast increase of human misery, which the world must suffer, from the inadequate attainments of the next race of surgeons, unless legislative interference produce a prompt and sufficient remedy?

The subject is of the deepest interest to humanity—it is almost too deep indeed to admit of personal feelings; but I am persuaded that it requires only to be dispassionately considered by those who have the power of remedying the evil, to produce a thorough conviction, that the system of avowed proscription of anatomy, is a system teeming with the most deplorable consequences to society; and that, though some struggles of natural feeling must be encountered, and many prejudices overcome, yet the advantages to be obtained are so vast, or rather the necessity of the case is so imperative, that ANY UNNECESSARY DELAY IN MAKING THE SUPPLY OF THE SCHOOLS OF ANATOMY A MATTER OF LEGISLATIVE ENACTMENT, WOULD BE A VITAL INJURY TO THE BEST INTERESTS OF THIS COUNTRY, AND OF MANKIND AT LARGE.

END.

ERRATUM.

Page 22, line 14, *for* previouly, *read* previously.