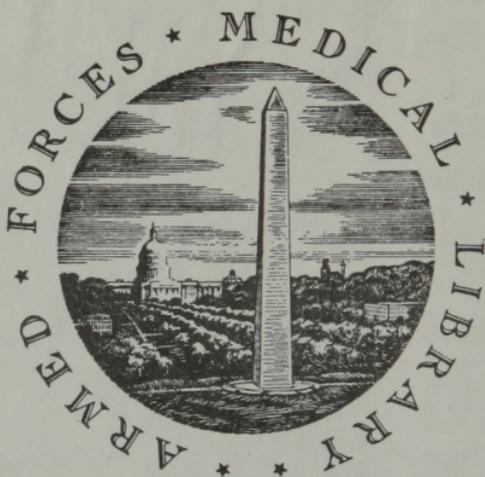


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UNITED STATES OF AMERICA



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HOUSE.....

.....NO. 4.

Massachusetts, USA
House of Representatives

REPORT

OF THE

SELECT COMMITTEE

OF THE

Massachusetts. General Court.

HOUSE OF REPRESENTATIVES,

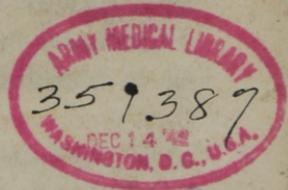
ON SO MUCH OF THE GOVERNOR'S SPEECH, AT THE

JUNE SESSION, 1830, AS RELATES TO

LEGALIZING THE STUDY OF ANATOMY ,

REPORTED BY A SELECT COMMITTEE.....CONSISTING OF

- Messrs. J. B. DAVIS of Boston
- G. WILLARD of Uxbridge
- A. HUTCHINSON of Pepperell
- L. W. HUMPHREYS of Southwick
- J. B. FLINT of Boston.



Boston :

DUTTON AND WENTWORTH, PRINTERS TO THE STATE.

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REPORT

OF THE

SELECT COMMITTEE

OF THE

HOUSE OF REPRESENTATIVES

IN RESPONSE TO A RESOLUTION PASSED AT THE

100th SESSION, CHAPTER 10

QS

M411r

1831

Messrs. E. DAVIS of Boston,
G. WILLIARD of Uxbridge,
A. HUTCHINSON of Falmouth,
E. W. HUMPHREYS of Southwick,
J. H. ELLIOT of Boston.



BOSTON:
BUTTON AND WENWORTH PRINTERS TO THE STATE,
No. 141 & Exchange Street.

1831



Commonwealth of Massachusetts.

IN HOUSE OF REPRESENTATIVES, JAN. 6, 1831.

THE select Committee of this House, to whom was referred so much of his Excellency, the Governor's Speech at the June session, 1830, as relates to the Study of Anatomy in this Commonwealth, have attended to that duty, and now submit the following

REPORT.

THE subject committed to them, though it yield in importance to few that come within the scope of Legislative action, is beset with difficulties even in approximating a satisfactory, practical result. On the one side are the health, the safety of the limbs and lives of a whole community; on the other are encountered those strong prejudices, powerful associations, and earliest impressions of awe and reverence, for the repose of the dead, which are too strong to be conquered, too delightful to be despised, and too solemn and hallowed to be effaced.

Deeply impressed with these considerations, your committee have thought proper at this time to go into a full examination of the subject committed to them,—to look at it in all its aspects, and to present, not

only the results, but the details of their researches and reasonings on it, with a hope of putting the Legislature in full possession not only of the views, which your committee entertain, but also of the routes by which they have proceeded,—the important considerations which are suggested, and the difficulties which are to be encountered.

Your Committee claim no other merit than that of a faithful compilation of the facts and reasonings of distinguished men, who have devoted their attention to this subject, and your Committee's object has been to arrange and to condense, what appears to them to have a proper bearing on the subject, so as to put it into the possession of all the members of the Legislature, or at least make it easily accessible to them.

Your Committee propose to consider :

- I. The Rise and Progress of Anatomical Science :
- II. Its indispensable importance to both great branches of the Healing Art ;—the practice of Medicine and Surgery :
- III. The interest which Society at large, especially, and the Medical Profession incidentally, have in the modification of the laws of this Commonwealth, so as to afford a reasonable facility for the pursuit of Anatomical Science :
- IV. The Provisions, and the Character and Effect, of our present laws, regulating the practice of Physic and for the Protection of the Sepulchres of the Dead :
- V. The Provisions that have been made in France and other enlightened countries, for the promotion of Anatomical Science ; and
- VI. Present those conclusions, which the Committee

recommend for Legislative sanction by legal enactments, with a view to like results in our enlightened Commonwealth.

I. The Science of Anatomy, like Astronomy, Botany, Chemistry, and other mixed Sciences, requiring the union of intellectual vigor and power with nicety of ocular observation and manual skill, has grown through a lapse of successive ages, from small beginnings to its present improved condition: But, although great progress and improvements have been achieved, much yet remains to be done. Though Newton, Linnaeus, Lavoisier and Harvey have in their respective pursuits achieved lasting fame for themselves, and conferred the greatest benefits on the human race, still since their glorious careers have ended, much more has been added to the conquests of Science, and if proper encouragement be not withheld, we may expect in each branch that new discoveries will yet be made, extending the limits of the human intellect, and giving us new cause to admire, reverence and adore that Eternal and Infinite Wisdom, by which, both Man, the inferior animals, and inanimate Nature have been so wonderfully adapted to the purposes of their creation.

The early accounts of Anatomy are so mixed up with fable, that little or no reliance can be placed upon them. It no doubt existed in an incipient state among the Egyptians.

In fact from the earliest ages, as disease, infirmity and exposure to labor and suffering were the common lot of man;—Medicine and its most important auxiliary, Anatomy,—but in a rude, degraded, and uninviting condition, must have existed as the necessary incident of this con-

dition of our race. When the savage chief Omai was in Dr. Hunter's Museum, although he had not the power of explaining himself, it was apparent, that he knew the principal parts of the human body and something likewise of their uses, and manifested a great desire of having the functions of the internal parts of the body explained to him. The poems of Homer show that some anatomical facts were known as early as his era.

The patriarch Joseph, we read, was embalmed and buried in Egypt. In the Old Testament there are other faint traces of resort to Anatomy either for the relief of the suffering living, or for the purpose of resisting the common and inevitable decay of that mortal frame, around which the associations of the survivors were wont to cluster. But both by the Egyptians and Jews, and also by the Arabians, the persons, employed in opening dead bodies, were considered polluted, and it is recorded of the Egyptians that they even stoned them, when they appeared in the public streets.

Their religious rites as well as most of their principles of morals and government were received by the Greeks from the Egyptians, Thracians, and other nations of the East, which were in a high state of civilization and improvement when Greece was yet immersed in barbarism and ignorance. Colonies from these nations landed in Greece and taught its native people the rudiments of the Arts, ceremonies of religion, habits of civilized life, and by degrees brought them to submit to a regular form of Government.

In the earliest period of the history of Greece the character of physician was often superadded to that of priest, and hence arose an idea very prevalent in all

ages, and perhaps in all nations, however savage, of a sanctity appertaining to the practitioner of the Healing Art. This idea is known to be prevalent among most of the Aborigines of America, and also among other savage tribes in Africa and Asia. The pestilence, that was destroying the Grecian Army on the plains of Troy, could not be stayed till they had carried a sacred hecatomb to Chryses, the priest of Apollo. In the religious system of the Greeks in addition to their numerous oracles, they had an extensive system of Theomancy, consisting of divinations by dreams, sacrifices, birds, lots, and ominous words and things, and of magic and incantations. The study of divination by sacrifices necessarily led to the study of anatomy of Animals, for it consisted in making observations while killing and cutting up the victim. These observations were not confined to external appearances, but were extended to the entrails and internal organization, and as these were found healthy or diseased, whole or defective, so was an inference drawn and the prediction ventured, for good or ill.

The death of Alexander the Great, was predicted by the soothsayer Pythagoras, because the victim's liver had no *lobos*,—and his favorite Hephaestion's death was forewarned by the same omen.

Cæsar's victory over Pompey was foretold, because

“Of the liver's heads one overgrown,

“And as 't were squeez'd, was by the other down.”

And Caracalla was warned to take care of himself, “because the gates of the liver were closed.”

In all divinations by sacrifices, the liver was the first object, from an idea, if it were defective, the blood and

whole system partook of its deficiency. But in addition to divination from the bodies of Animals, the Greeks practised a system of divination with the bodies of deceased persons, called Neckromancy, which must have led to the study of the human Anatomy. It was sometime performed by the use of a bone or vein of a dead body, or by pouring warm blood into an entire dead body, as it were to renew life in it.

Dum vocem defuncto in corpore quaerit,
Protinus adstrictus caluit cruor, atraque fovit vulnera.

“ While he seeks answers from the lifeless load,
“ The congealed gore grows warm with reeking blood,
“ And cheers each ghastly wound.”

Hence the fables of Orpheus raising Eurydice from the shades, of Ulysses and of Eneas at lake Avernus in Campania, &c. &c. What a tribute to the value of Anatomical Science, that an early tradition of its use by a distinguished poet and philosopher, though lost in fable, should be, that he had successfully charmed back from the shades below the wife of his love?

It may be here remarked that another species of the early Grecian Divination was called Pharmacy, which consisted in the use of certain medicated compositions of minerals, herbs, &c. Democritus and Pythagoras, both in fact eminent in their day as physicians, were skilled in this art. Suidas reports that the curing of distempers by sacrifices and the use of certain invocations, had been practised ever since the time of Minos, King of Crete; and Homer relates how Autolycus' sons stopped Ulysses wounds from bleeding by a charm:

With nicest care the skilful artist bound
 The brave Divine Ulysses' ghastly wound,
 And the incantations stanch'd the gushing blood.

The same is observed by Pliny, who says, it was reported by Theophrastus that the Hip-Gout was cured in the same way: by Cato that a charm would relieve any limb out of joint, and by Marcus Varro, that it would cure the gout in the feet. The famous leech, Chiron, is said to have used this remedy in some diseases but not in all; for he was in advance of his age.

It is undoubtedly true that the same mixture of gross superstition with the earlier beginnings of medical skill and the rudest attempts at its practice, have been witnessed in all ages and in the early history of almost all nations.

The importance of the Healing Art may be readily inferred from the fact that in all ages and in the darkest shades of ignorance, man has ever practically recognised the Doctrine; "from the most High cometh healing," and to "God our Lord belong the issues from death."

Thucydides relates that at the breaking out of the plague of Athens, the soldiers, finding their accustomed aid from the physicians failed, resorted for relief to the Soothsayers and Divines, and like principles of human action led to the deifying of Esculapius and to many other fables with which the Grecian Theogony abounds.

To Pythagoras, one of the most eminent men that any age of the world has produced, belongs the honor of first cultivating the anatomy of animals. He taught

that the blood nourished the body, that the arteries and veins were the vehicles of life, and laid the foundation, on which his pupils in after years were enabled to build.

Among these, were Alcmaeon, Anaxagoras and Empedocles. Democritus of Abdera possessed an independent character and an inquisitive mind. He was also in advance of the age in which he lived. He ridiculed unceasingly the follies of his fellow men, and this turn of disposition, aided by his love of dissection, gave him among his cotemporaries the reputation of being mad.

Hippocrates is a name so intimately associated with the early history of the healing art, as to have acquired the honorable adjunct of the "Father of Physic."

His theories however are extravagant, wanting the only safe foundation for theory on any subject; a close observation of nature, and a rigid abstinence from imagination and fancy. He taught that there was one general principle called nature, possessed of intelligence and having virtues and powers, the servants of this principle, by which it performs all operations in the bodies of animals, distributes the blood, spirits and warmth to all parts of the animal frame, and gives them life and sensation. This principle attracts what is good or agreeable to each species, and rejects whatever is hurtful or useless, and he thus obtained the foundation of his theory of depuration, concoction, and crisis in fevers. When he explains what he means by nature, he resolves it into heat, which he says appears to have something immortal in it. Thus it would seem that our modern Steam and Lobelia Doctors have no claim to originality in their theory, for it is at least as old as the age of Hippocrates.

He was impressed with the importance and necessity of Anatomical Knowledge, and sought it, where the prejudices and ignorance of his age alone permitted him to seek it, among the decaying relics of mortality in the grave yard. Though his theories were imaginary, he was a great observer of facts: and the eminent French physicians of the present day recur to Hippocrates as the greatest and best of the authorities of antiquity.

Asclepiades was the opponent of Hippocrates. He taught that matter is unchangeable, that all bodies are composed of a number of small ones, called corpuscles, having between themselves a space called pores or interstices, devoid of matter—that the soul is composed of those corpuscles: that nature is nothing more than matter and motion: that Hippocrates knew not what he said when he spoke of nature as an intelligent being: that these corpuscles have different figures and are differently arranged; that the pores or interstices are of different sizes; that the human body has pores peculiar to itself: that they are of different sizes according to the magnitude of the corpuscles that pass through them, and that the body consists of the largest and the spirits and animal heat of the smallest. He maintained that so long as the corpuscles are freely received by the pores, the body remains in its natural state. On the contrary, that so soon as any obstacle obstructs their passage, it begins to recede from that state; therefore, that health depends on the just proportion between these pores and corpuscles: that disease proceeds from a disproportion between them: that the most usual obstacle arises from a retention of some of the corpuscles in their ordinary

passages, where they arrive in too large a number or are of irregular figures, or move too fast or too slow ; that phrenzies or burning fevers are produced by the corpuscles stopping of their own accord ; that delirium, leanness and dropsy derive their origin from the bad state of the pores ; that hunger arises from the opening of large pores of the stomach, thirst from the opening of the small pores, &c. &c.

Soon after the era of these rival physicians, schools were established at Athens, in which anatomy of animals was made a part of the studies. The anatomical descriptions of Plato and Xenophon, the favorite disciples of Socrates, are often mentioned as specimens of fine writing. A passage is referred to in the writings of Plato, from which it is inferred that he must have had some imperfect conception of the greatest of all medical discoveries, the circulation of the blood.

Aristotle, the philosopher of Stagira, whose fortune it was to establish a dominion over the human mind, far more extensive and lasting than his pupil Alexander, or the most ambitious conqueror of former or later periods, in the plenitude of his power, ever possessed over the external condition of man, is said first to have attended to the anatomy of the human frame ; but some deny him this high praise, allowing him only the merit of immense labor for the science of comparative anatomy, and giving to his successors, Herophilus and Erisistratus, the honor of having first dissected the human body. In his scientific labors, he was countenanced and assisted by his pupil Alexander the Great, whose mind to his great honor, it may be recorded, conquered and threw off the trammels of the prejudices of that period. The amount of patronage bestowed by Alexander on Aris-

tole, to enable him to prosecute his studies, was immense. It is stated by several historians as high as between 100,000*l.* and 200,000*l.* sterling. Aristotle when dying, is said to have uttered the following aspiration. It breathes the spirit of true piety and humility. It is, too, illustrative of this eminent philosopher's character :

“ Faede hunc mundum intravi—anxius vixi—perturbatus egredior—
causa causarum miserere mei.”

“ I entered this world in the humblest condition—I have lived a life of anxiety—I am now going out of the world in pain—*Great First Cause of all things* have mercy upon me !”

Forty years after Alexander's death, Herophilus appeared in Syria, where he was protected in the study of Anatomy by Dissection, by Seleucus. Erisistratus also appeared in Egypt, where he was protected and encouraged in the same pursuit by Ptolemy Philadelphus.—Popular prejudices however were strong against such pursuits.

The great mass of mankind were then debasingly ignorant ; very few rose above the level, at which from the development of man's physical appetites, to the utter neglect of his high moral and intellectual attributes, he becomes merely the chief of the animal creation, instead of fulfilling his higher destiny of living not only for himself, but for the benefit of his posterity ; and by daily improvement—of approximating nearer and nearer to the illustration on earth of the sublime truth, that God created man in his own image and made him but “ little lower than the angels.”

They therefore then felt extremely jealous of these

novel inquiries, prosecuted with zeal, under royal patronage and favor.

The idea was prevalent that their kings were searching for the principle of life, which found, they could secure to themselves exemption from the common lot of man, and flourish in continued youth, whether they lived for the good or ill of their subjects.

A school for medicine and anatomy was, however, established at Alexandria in Egypt, and notwithstanding these prejudices, flourished with varied success. It was the only source of medical and anatomical knowledge till the decline of the Roman empire.

But little progress was made in anatomical science by the Romans. It is worthy of remark that civilization owes but little to these boasted conquerors, for any additions made by them to the dominion of either Art or Science.

In fact, so far from improving upon the Greeks, they were hardly able to learn and retain the excellence already achieved by them.

In Architecture, all their efforts served only to debase and degrade the simple and beautiful models, which the pure style of the Greeks afforded.

Galen is the only Anatomist of any eminence, of whom we have an account as having flourished in Rome, or of whose labors in the "Eternal City" of Western Europe, we have any memorials; and he was a Greek and learned his profession at the Medical School of Alexandria;—itself founded and maintained by Greeks.

Superstition had even more sway with the Romans than with the Greeks, and they trusted far more to the incantations, mysteries and foolish rites than they did to the surgical skill of those, who combining the characters

of augur and surgeon, at once undertook to cure both the bodily and moral ills of their followers and believers.

In the earliest ages of Greece, burying the dead was practised rather than burning, and although the latter mode was in practice as early as the siege of Troy and soon became general, interring continued to be practised in many cases.

The philosophers were divided, and although the majority were in favor of burning, there were at a late period those who looked on the custom of burning as barbarous and inhuman.

With the Romans, however the practice of burning was more general, and it universally prevailed from the days of the Dictator Sylla, who is supposed to have ordered his body to be burned lest his enemies might have disinterred it, and treated it with like indignity as was by him shown to the remains of Marius.

Under the Emperors the custom of burning became universal, but was gradually dropped on the introduction of Christianity, so that it had fallen into disuse about the 4th century.

This custom no doubt tended to discourage and render difficult anatomical dissections among the Romans. Galen, upon coming to Rome from Alexandria was made physician to the good, and therefore great, Marcus Aurelius. He compiled from the Greeks and also prepared a compend of his own, that was the most complete then extant.

No other anatomist is known to have flourished and no other improvement in the science was made, till after the downfall of the Roman empire and the revival of letters in Europe. About the year 1530, there appear-

ed the prince of quackery, *Philippus Aureolus Theophrastus Paracelsus Bombast Von Hohenheim*. He was born at Zurich and lectured at Basle. His theory was, that *salt, sulphur* and *quicksilver* were the constituents of all organized bodies, and were combined by chemical operations. Their relations were governed by *Archeus*, a demon, who was governor of the stomach; that this demon, this *spiritus vitæ*, was the immediate agent both in producing and in curing disease. Diseases were produced by influences, called by him *ens estrale, ens veneni, ens naturale, ens spirituale* and *ens deale*; that when the demon was sick, putrescence or mortification took place and that either *localiter* or *emunctorialiter*, &c. Such theories, though once soberly taught and seriously believed, seem now as ridiculous and amusing, as Pope's account of the researches of Martinus Scriblerus for the seat of the soul. That profound philosopher, according to his biographer, concluded that the soul resides in different parts according to different inclinations, sexes, ages, and professions. Thus in epicures, he seated it in the mouth of the stomach; in philosophers, in the brain; in soldiers, in the heart; in women, in their tongues; in fiddlers, in their fingers: and in rope-dancers, in their toes; at last however he grew fond of the *Glandula Pinealis* as being the favored residence, and he was confirmed in this theory by observing, that calves and philosophers, tigers and statesmen, foxes and sharpers, peacocks and fops, monkeys and players, courtiers and spaniels, moles and miners, exactly resemble one another in the conformation of the *pineal gland*.

The period, which followed the decline and fall of the Roman empire, is known as the dark ages, and the sci-

ence of medicine was lost to all useful purposes and checked as to any improvement, for about 1,000 years, when a Paduan physician ventured to give demonstrations in anatomy. The emperor, Frederic II. issued a decree prohibiting all persons from operating on the living, who had not learned dissection on the dead.

But on this science as well as on all others, priestcraft and superstition exercised a baleful influence.

The students of anatomy were destined to experience a portion of that illiberal spirit, which punished Galileo for teaching the true system of nature. Pope Boniface VIII. prohibited dissections under the penalty of excommunication. But a prince, not more eminent in arms than for his love of the Arts, and his superior sagacity and strength of intellect, Charles V. of Spain and Germany, having obtained a preponderating influence in the affairs of Europe, he demanded of the Doctors of Salamanca, whether it were lawful for good Catholics to open dead bodies. Their reply was shaped in conformity with what was believed to be that eminent monarch's own wishes; that it was a useful and therefore a lawful practice. He forthwith extended his patronage to anatomists and a great impulse was given to the science of anatomy in the Low Countries, in Germany and in Spain, and in Italy.

Vesalius of Brussels, a most eminent name in the history of anatomy, was made a Professor at many institutions and was honored with the appointment of physician to Charles V. and Philip II. To Vesalius belongs the far greater honor of having by his knife detected and exposed the rash conclusions and fallacies of Galen, excited a spirit of inquiry and given a new impulse to the Science of Anatomy. And under what embarrass-

ments and difficulties, he was enabled to do this may be inferred from the fact, that he was actually sentenced by a Canonical Court to make a pilgrimage to the Holy Land, to expiate the sin of having opened the dead body of a Spanish nobleman, who had suddenly died!

For many years after the time of Vesalius, anatomy remained in a state of comparative rudeness and barbarism, presenting occasional gleams of light, which were soon lost in the surrounding darkness. He was succeeded by Columbus, a name distinguished in the discoveries of anatomy as well as by the discovery of a new world. Fallopius also flourished at this period and is remembered as the discoverer of the Fallopiian tubes. Eustachius, Servetus, Fabricius and others succeeded; Servetus claims the honor of tracing the circulation of the blood through the lungs, but a prior right to this honor is claimed for Columbus. Servetus died at the stake, a martyr to his religious opinions.

Fabricius first observed the valves to the veins. He had a distinguished school at Padua, to which those emulous of medical excellence and science very generally resorted.

At this school the true mode of study was adopted; the study of facts instead of theories; and the consequence was that the rapidity of improvement almost exceeded hope, and the veil interposed by prejudice and scholastic dogmatism was forever withdrawn.

Successive demonstrations and observations had prepared the way for a discovery, compared with which all former anatomical discoveries sunk into insignificance, and which was destined to change the entire system of anatomical science, placing it at once on a new but per-

manent and safe basis. William Harvey, an Englishman, was a student at the Paduan school.

The former discoveries of the valves in the veins led his attention to this part of the animal economy, and he was enabled soon to discover and to demonstrate the true system of the CIRCULATION OF THE BLOOD from the heart, the grand centre of life through the arteries to the surface, thence back through the veins again to the heart.

This discovery fairly overshadowed all that preceded it. Its great importance will give interest to the following extract from a life of Dr. Harvey, contained in one of those popular and excellent works of recent introduction, "The Family Library."

"The same service which Newton afterwards rendered to optics and astronomy by his theories of light and gravitation, Harvey conferred upon anatomy and medicine by his true doctrine of the circulation of the blood. He was descended from a respectable family in the county of Kent, and was born at Folkstone on the 1st of April 1573. The date of the first promulgation of the doctrine of the circulation is not exactly ascertained: it is commonly asserted he first disclosed his opinion on the subject in 1619 after he had been lecturing four years."

"The index, however of his MSS. in the British Museum, which contains the propositions on which the doctrine is founded, refers them to April 1616. Yet with a patience and caution peculiarly characteristic of the sound philosopher, he withheld his opinions from the world, until reiterated experiment had amply confirmed his system and had enabled him to demonstrate it in detail, and to advance every proof of the truth, of which the subject is capable."

“The reputation of Harvey had recommended him to the notice of the court, and he had been appointed Physician Extraordinary to King James I. In 1632 he was made physician to his successor Charles I. By his unfortunate royal master he was always treated with regard and favour; and the attachment to arts and sciences, which formed a conspicuous part of the king’s character, contributed not a little to promote and encourage the pursuits of our philosopher. It is not without a degree of pardonable vanity that Harvey describes his Majesty, with some of the noblest persons about the court, as deigning to be the spectator and witnesser of his experiments.”

“The interest king Charles took in the success of his anatomical researches was of singular service to him, and in particular his majesty’s favourite diversion of stag-hunting furnished him with the opportunity of dissecting a vast number of animals of that species in a pregnant state.”

“When Charles visited his northern dominions in 1633, for the purpose of holding a parliament, and going again through the ceremony of a coronation, Harvey accompanied him, during which time he made an excursion to the Bass Rock, in the Frith of Forth, of which he has left an elegant and picturesque description.”

“Soon after his return the anatomical skill of Harvey was employed by the king’s command in the dissection of that extraordinary instance of longevity, Thomas Parr, who died November 14th, 1635 at the age of 153 years. He was a poor countryman, who had been brought up from his native country, Shropshire, by Thomas, Earl of Arundel, and shown as a great curiosi-

ty at court. At the age of 88 he had married his first wife : at 102 he had done penance in church for a breach of the laws provided against incontinency. When he was 120 he married again, taking to wife a widow, with whom he is represented to have lived upon the most affectionate terms. At 130 he had threshed corn, and done other agricultural work, by which he gained his livelihood. His usual habits of life had been most sparing ; his diet consisting of coarse brown bread, made of bran ; of rancid cheese, and sour whey : but when, on his arrival in London, he became domesticated in the family of the Earl of Arundel, his mode of living was changed, he fed high, drank wine and soon died."

" The original MSS. of Harvey's lectures are preserved, it is said in the British Museum, and some very curious preparations, (rude enough as compared with the present ingenious methods of preserving parts of the human body) which he himself made at Padua, or procured from that celebrated school of medicine, and which most probably he exhibited to his class during his course of lectures on the circulation, are now in the College of Physicians; they consist of six tables or boards upon which are spread the different nerves and blood-vessels, carefully dissected out of the body ; in one of them the semilunar valves of the aorta are distinctly to be seen."

" Now these valves, placed at the origin of the arteries, must, together with the valves of the veins, have furnished Harvey with the most striking and conclusive arguments in support of his novel doctrines."

" The interesting relics just mentioned had been carefully kept at Burleigh-on-the-Hill, and were presented

to the college by the Earl of Winchelsea, the direct descendant of the Lord Chancellor Nottingham, who married the niece of the illustrious discoverer of the circulation of the blood."

"Harvey was a great martyr to the gout, and his method of treating himself was singular. He would sit with his legs bare even if it were frosty weather, on the leads of Cockaine House, where he lived for some time with his brother Eliab, or put them into a pail of water, till he was almost dead with cold, and then he would betake himself to the stove, and so it was done. He was troubled with insomnolency, and would then get up and walk about his chambers in his shirt till he was pretty cool, or even till he began to shiver, when he would return to bed and fall into a sleep."

So great was the admiration of Harvey's discoveries that his statue was erected in his honor during his lifetime by the London College of Physicians.

But the magnificent discovery of Harvey served only to stimulate other examiners of nature's noblest work, to renewed efforts to overtake and embrace the beautiful, but light-footed, timid and retiring Goddess, Truth. The dazzling light, which Harvey had cast, as with the flash of a thunderbolt, on the path of true discovery, did not blind those who followed him, but like the star in the north served to guide them in safety and certainty to new and grand results.

Asellius discovered the Lacteal ducts, Pecquotus, the Thoracic duct.

Two Anatomists of the last century, Hunter and Hewson, discovered the Lymphatics and that they serve the admirable purpose of taking away the useless and superfluous parts of the human frame. Thus it would seem

that the triumph of anatomical science had been fully assured. The stomach and its auxiliary organs had been found to be the grand laboratory, in which the nourishment, supplied by the appetites, was converted into blood, or into blood in its incipient condition;—this has been followed in its progress, till it arrived in the condition of arterial blood at the lobes of the heart, the grand centre of life;—thence it had been followed, pouring forth through the arteries its crimson current, rich with nourishment, health and strength to the remotest and smallest members, and thence its return through the veins has been traced back to the heart, again to recommence its course of health, vigor and strength to the whole and perfect man.

But there was another part of the human frame, which had as yet been imperfectly examined or understood. The brain had elicited many theories, but its organization, as well as its connection with, or uses in, the intellectual operations of man, were but imperfectly if at all understood. The true history of the organization of this organ was first developed in the present century, by a German Anatomist, Dr. Gall, who has become known and distinguished as the founder of the system of Phrenology or Craniology.

Pythagoras, Plato, Galen, Haller and other Physiologists placed the sentient soul or intellectual faculties in the brain. Aristotle placed it in the heart; Van Helmont in the stomach; Des Cartes and his followers in the pineal gland; and Drelincourt and others in the cerebellum. A succession of observations not only of the external appearances but also of the anatomical formation of the brain, in a variety of subjects, led Dr. Gall to the belief, that the structure of the brain was different

from what it was generally conceived to be, and has enabled him to give a correct idea of the structure of this important organ.

He demonstrated that it consisted of two hemispheres, and that these were composed of fibres regularly arranged.

Till anatomical research had placed every branch of Medical Science on a sure basis, the practice of physicians was directed by theories, as absurd as, though perhaps more plausible than, those of Paracelsus. There were mechanical physicians and chemical physicians;—one physician tried to cure one fever by inducing another;—another physician opposed phlebotomy in all cases;—another prescribed alcohol for the cure of the gout;—another, tea as a sovereign remedy in all cases—forty or fifty cups for a fever, to wash off the slime of the *pancreas*—and another traced all diseases to an excess or want of fire or water in the system—one cured fever by starving—another by stimulating;—so that it has been truly remarked, that the ravages of the yellow fever, or of the battle of Waterloo, are trifling compared with the piles of victims, that have been sacrificed to false and unphilosophical medical theories.

Having thus rapidly sketched the Rise and Progress of Anatomical Science, from the extravagant and crude theories of those, who are now only remembered as the earliest of the practitioners of the Healing Art, and as the first explorers of this, then Terra Incognita of the Dominions of Science, down to the present period of its advancement and improvement by the aid of observation, dissection and a close adherence to facts, and their invariable preference to theory, however flattering, specious or enticing;

II. We next propose to show, that the study and knowledge of Anatomy are essential to the safe and successful practice of Medicine.

In teaching the most ordinary mechanical operations, the process is to begin with the parts and proceed thence to a knowledge of the whole. The smith teaches his apprentice, first to form a nail or to go through some simple operation, and starting thence by gradual progress, he acquires the master-workman's skill, and becomes competent to operate upon and to form for useful purposes large masses, or to adjust the springs and balance wheels of some nice machinery. The ship-carpenter first teaches the young beginner at this trade to prepare the plank, or to hew the timber according to a plan prepared for him, and it is by slow and gradual progress that he is fitted to occupy the place in the course of events to be vacated by his master, and to perform well and with certainty every process, necessary to convert the oak of your forests into those floating bulwarks, at once the pride and protection of your country. So with the house-carpenter, the watch-maker and the machinist.

Each and all branches of the Mechanic Arts are first learned by acquiring a knowledge of the separate parts; then looking at and becoming familiar with their mutual relations and joint effects, appearances and operations, we become familiar with the whole. We learn particulars first, then we have the materials, from which to generalize. Such is the early operation of the human mind; such its first efforts. The infant calls every one it sees, when first able to articulate, by the endearing name of parent, or by some other term, dear and familiar to it; because it has to learn by a process of reasoning to which

it is not yet competent, that there are other and numerous persons in being, besides those with which it daily exchanges the fondest endearments and receives the kindest attentions. Let us apply these principles to the study of the human frame.

Man is truly wonderfully and fearfully made.

He is truly the last and greatest mortal work of the Almighty Creator and Benefactor.

He is a living, animated, nice, well-adapted, but complicated machine.

How is the machine to be studied and elucidated? How is the physician, whose business it is to keep the machine in repair, to learn his art? By taking it part from part, by tracing up effect to cause, by beginning with that which is apparent and following it up to that which is more recondite, by making himself familiar with every organ, power, effect; by learning the difference between the proper and healthy, and the irregular and diseased action of every part, and of all the parts; in a word, by Dissection.

He must learn his art by that simple process which nature herself indicates. By beginning with particular facts and thence proceeding to general results.

But the knowledge which is required of the most skilful mechanic for the successful prosecution of his business, affords but a faint idea of the extent of knowledge, and accuracy of practice, that should be demanded of the thorough-bred physician, who at times takes the lives of his fellow men into his own hands, to be saved or lost as he may prove skilful, or the reverse.

Would any one trust a valuable watch—an heir-loom—that in addition to its intrinsic value had a sort of moral and peculiar worth, from its having been the fa-

vorite timepiece of a beloved parent, of a departed sage or patriot—would such a valuable relic be trusted even to Roskell himself, had he no other knowledge than was to be learned from finely written descriptions, nicely executed and colored drawings, or even the best and most accurate models; to which however the principle of motion had never been imparted? Would a wise man employ to build the house, in which he meant to say, soul take thy rest, and enjoy the many good things that Providence has allotted thee, a house-builder whose knowledge of his trade had been learned from the works of Palladio or Stuart, rather than one, who, with cultivated mind, had learned the necessary details of his trade over the bench and in his workshop?

And shall we absurdly trust to operate on the human frame, made in God's own likeness, filled with that nice machinery, to which even to approximate would bid defiance to human ingenuity and industry, those individuals who are prepared by the study of only wax models and paper drawings? If we do, accident and good luck may sometimes lead the surgeon to happy results. But he has no certainty in his operation and feels no confidence in himself. He gropes in the dark. He may do this successfully so far as to pass through the great avenues without losing himself.

But how can we expect him with accuracy and celerity to pick up a cambric needle or to remove a grain of sand, not merely from the surface, but from the remotest and obscurest corner of that surface?

It would be far safer and wiser for a ship's crew to trust themselves and their vessel to a blind pilot; for if they took a true departure and knew the course and distance to the place at which they meant to arrive, their chance for a fortunate issue would be far greater.

Not only is this knowledge of anatomy necessary to the surgeon, but it is of so fleeting a nature as to require constant practice to keep it fresh and bright. The oldest, most practised and adroitest surgeon will never essay an ordinary operation on a living subject, before he first has traced out his track, with the certainty, and all the solemn sanction of life or death, on the dead subject. It is dissection, repeated and reiterated dissection alone, that can teach him, where he may cut the living body with freedom and despatch; where he may venture, only with great circumspection and delicacy; and where he must not on any consideration attempt, what man's organization would render fatal. This frequent dissection informs the head, gives dexterity and power to the hand, and familiarizes the heart, to a sort of necessary inhumanity, the use of cutting instruments upon fellow-creatures. A proper knowledge of the organization of the human frame and of the mode and effect of surgical operations can then only be acquired by the dissection of dead bodies, and this knowledge can only be retained by frequent and continued dissections.

In addition to these considerations, it follows as a corollary from the propositions already proved, that improvements in the mode of performing known and common operations can only be expected from frequent dissections by the surgeon;—and that such improvements will be made, may be fairly inferred from the fact, that in many cases they have already been made.

Amputation of a limb has now lost many of its horrors, and the difference is immense, between the desperate resort of the Greeks and Romans, who knew of no other way to stop the hemorrhage, than to plunge the mutilated stump into boiling pitch, thus superadding

agony to suffering ; and the present speedy, simple process of tying up the veins and arteries, and thus placing the unfortunate sufferer at once at comparative ease. The progress of anatomical skill has already saved to afflicted humanity a vast amount of suffering, as well as preserved many valuable lives, and we believe that its resources for relieving man from many of the ills " that flesh is heir to," are neither all developed, nor, we trust, exhausted.

The extent of the triumphs already achieved by surgical skill may be adequately conceived, from the following case, which we find mentioned in a recent number of the London Medical Gazette.

" Case in which the cheek and mouth were restored by operation.

"In such cases as this (the forlorn hopes of surgery) English surgeons must certainly yield the first rank to their brethren in France, whom no difficulty seems to daunt, and whose patients seem inspired with a perseverance that sets pain and failure at defiance. At the sitting of the Academy of Sciences on the 12th of July M. Dupuytren showed a patient from ten to twelve years old, in which he had succeeded in restoring the lips and a great part of the right cheek, thus filling up the void left by the loss of the lower jaw of that side. These different parts had been destroyed by a gangrenous inflammation, and the result of this great loss of substance was a hideous deformity, continual flow of saliva, prolapsus of the tongue on the neck, and impossibility of articulating.

M. Dupuytren formed the design of repairing these disorders by borrowing a portion of the integuments which

covered the anterior part of the neck. After having once failed, he succeeded in uniting a portion of the integuments with the edges of the cheek."

"All trace of this operation is now reduced to linear cicatrices, not very disagreeable to the eye; the tongue and saliva remain in the mouth; speech though weak and embarrassed is yet intelligible; but the dimensions of the mouth are so extremely small, that a tea spoon, even, cannot be introduced, so that mastication cannot take place, and he is obliged to live upon liquid aliments. Notwithstanding this singular appearance, the boy has nothing revolting in his aspect, and his life is no longer an insupportable burden as it was before the operation."

The superiority, conceded as above quoted, to French surgeons by a British periodical, is wholly attributable to the greater facilities afforded for dissections in France by the French Laws.

But surgical operations are few compared with the more common maladies which require the aid of the practitioner of medicine.

Is a knowledge of Anatomy necessary to him? Does it better enable him to invoke the aid of Botany, Chemistry, Dietetics, Gymnastics, &c. &c. to restore vigour and health to the diseased frame? Is it in fact essential to his success in these efforts? Or is Pathology a science independent of Anatomy?

These are inquiries deeply interesting to every member of the community; for, though we all hope to escape those accidents or maladies which demand the surgeon's knife, few, if any, are exempt from the painful duty of seeking more than once in their lives, that grateful relief which the skilful physician knows how to

administer to the sinking, diseased and suffering man. A distinguished physician and most eloquent writer has said:—"If we consider every branch of medical science, education and practice in detail, we shall discover that each has a more or less immediate reliance on Anatomy and Physiology, and that all the best established principles of Medicine are founded upon the knowledge of structure and function. Anatomy is the only department, which may be strictly declared to have an independent existence, inasmuch as Physiology, Pathology, Therapeutics and Surgery exist only in immediate reference to it; and the sciences of *Materia Medica* and Chemistry pertain to Medicine, only so long as they refer to the other branches, which presuppose an acquaintance with Anatomy."

"Without Anatomy, Physiology cannot exist, Pathology cannot be studied, practice would be reduced to random experiment and Surgery degraded from the high rank it now holds."

"Without the torch of Anatomy to direct his movements, the efforts of the accoucheur would be in vain, on those occasions, where his judicious interference is attended with life and safety to the mother and her tender offspring. Without a knowledge of Anatomy and Physiology, in vain might the Chemist follow nature through her mysterious combinations, to discover agents of greater potency and usefulness than those already employed; in vain might the student of *Materia Medica* cull the drugs of distant climes, or explore the boundless regions of our own land for medical substances."

"Such then being the importance of anatomy and its absolute necessity to the formation of a good physician, it may excite surprise that any votary of medicine should

neglect opportunities of procuring that knowledge, which is the grand axis his profession revolves upon, and to which continual reference must be made in the performance of the most ordinary professional duties."

"The importance of anatomy is often assented to with readiness, but is too frequently not properly felt, until the individual is placed in situations where all his deficiencies stare him in the face, and his mind is agonized by recollections of valuable opportunities, irretrievably lost."

"A greater misfortune can scarcely be imagined than to witness operations performed by those, who have no better knowledge of anatomy than is supplied by their indistinct recollections of demonstrations imperfectly attended to, or the Anatomical details given in descriptions of surgical operations."

Reasoning from analogy, the inference is irresistible that the basis of all medical skill is a knowledge of anatomy.

How would the mariner successfully navigate the ocean with his frail bark, were he ignorant of its construction, unskilled to trim its sails, and to shape its course, so as best to encounter the opposing as well as favoring swell of the deep. Could the watch-maker or the machinist nicely adjust the various wheels, springs, checks, and regulators which unite to make the complete machine, were he ignorant both of its parts and of the principles and means of their mutual and combined action?

If not, how can the physician safely proceed with the human machine, in navigating through the difficulties and trials which it is called to encounter, how can he hope well to repair what is disordered, or to replace

what has been displaced, if he be ignorant of its construction, has never analyzed and properly studied the principles and means of its nice, peculiar and most wonderful operation? Assuredly he cannot. Anatomy then is the basis of safe medical practice. Not a step can the medical practitioner proceed without its light to guide and cheer him.

The human machinery is most complicate and recondite. We see the results, but we do not understand the causes and means by which they are achieved. We walk, we sit, we lift our hand, we sleep, we eat, and the body is nourished; these are daily circumstances, common place, nay, almost hourly events in every man's history; but how few are there; not, who understand the machinery by which these results are achieved, but who can fully and seriously appreciate that these and every other operation of the human frame, show that man truly is fearfully and wonderfully made. The organs, on which most of the important functions of the human body depend, are concealed from view. Their mutual effects and sympathies can only be understood by the knowledge of their secret, most recondite operations.

The grand mysteries of nature have only been developed by a close observation of nature, as she is. Theory will not do. Had Newton been a theorist, instead of a patient observer of nature, the system of gravitation would not have been discovered. Had Franklin been a day-dreamer, the nature of lightning and its identity with electricity might have been yet involved in mystery. It was Galileo's love of nature and his close observation, that taught him the true system of atmospheric pressure. Had Harvey been a theorist, his theories might have been remembered as well as those of Hippocrates, As-

clepicades, Galen and Paracelsus; "To point a moral or to adorn a tale;" but they would have been as useless and as unenduring. He was an observer of nature, he loved dissection, and his close observation of the human economy enabled him to make the brilliant discovery of the circulation of the blood. Systems of vessels of essential importance; for instance the absorbents that take up the food after it is digested and convey it into the blood, are under ordinary circumstances invisible to the naked eye. How could these absorbents been known to exist, except by careful and thorough dissection. Many diseases of the highest importance have their seat in the organs of the body: an accurate acquaintance with their locality is essential in order to judge of the locality of the disease.

In some portions of the body organs of different structure and performing different functions are very contiguous: we name the stomach, the liver, the gall, the bladder and portions both of the small and of the large intestines. The seat of pain is often at a great distance from the afflicted organ.

In the disease of the liver, pain is generally felt at the top of the right shoulder. The right phrenic nerve sends a branch to the liver. The third cervical nerve, from which the phrenic arises, sends numerous branches to the neighborhood of the shoulder: thus is established a nervous communication between the shoulder and the liver. This is a fact, which nothing but anatomy could teach, and affords the explanation of a symptom, which nothing but anatomy could give. The knowledge of it would infallibly correct a mistake, into which a person, who is ignorant of it, would be sure to fall: in

fact persons ignorant of it do constantly commit the error.

Disease of the liver has been known to be erroneously treated as rheumatism in the shoulder, and this error may have been fatal to the patient, by giving to a fatal and insidious disease an opportunity of taking root in the system. Disease of the liver is not unfrequently taken for disease of the lungs. So too, persons treated for disease of the liver have been found to have had no disease of the liver, but a disease of the brain.

Persons are often attacked with convulsions, especially children:—convulsions are spasms;—spasms of course are to be treated by anti-spasmodics. But these spasms are only symptoms, denoting an important disease of the brain, where only the remedy is to be applied; and the ignorant practitioner who prescribes and administers anti-spasmodics, not only loses the time in which the remedies to save life can be successfully employed, but actually exacerbates the disease and accelerates its fatal termination. In the hip complaint, so terrible and painful a disease, the first pain is felt in the knee, not in the hip. Of the numerous painful affections of the abdominal region, the lungs, the heart, the head and the extremities, some are traceable to a nervous origin and are known as Neuralgic Diseases. Dissection has enabled the anatomist to follow the nerves from these portions of the human frame into and through the spinal marrow, and other large but remote masses of nervous matter:—and this has suggested to the physician the truly philosophical remedy for the painful affections of these regions, produced by disordered nerves; viz. to apply remedies to the back,—the less obvious but true seat of the disease,—instead of to the immediate lo-

cality of the pain. Remedies thus applied have had the happiest effects, and afford new and striking illustrations of the necessity of anatomy to the successful practice of medicine.

Error in all these cases is inevitable without a knowledge of anatomy; and experience so far from leading to its detection, would rather serve to confirm it. Ignorance of the mode of properly applying his experience deprives the unskilled in anatomy of the ability of profiting by it.

How long was it before the true solar system was discovered and demonstrated, and how useless all the experience and observation of the grand results, produced by that magnificent system of nature, from the time that the shepherds watched the stars on the plains of Chaldea;—till beginning at first principles, by a rigid induction those results were elucidated by Copernicus, which afford a sure explanation of phenomena, before enveloped in darkness and mystery.

So with the human system: till an actual examination of its parts and consequent familiarity with their relations and operations has prepared the medical practitioner, when he has observed the effect, at once and with certainty, to follow it back to the cause, whether remote or near, direct or indirect, his observation and experience can only serve to confirm him in error. He may make theories, but they will not be based on philosophical principles; they may by accident and luck be right, but they are far more likely to be erroneous, and, like the thousand and one that have preceded them, will go down the stream of time into "the receptacle of things lost upon earth." In medicine as in the com-

mon concerns of life, it is the wise only who grow wiser by experience.

To the physician, anatomy is thus important. But to the surgeon, it has been emphatically remarked ; that it is eminently what Bacon has so beautifully said knowledge in general is, “it is power ;”—“power to lessen pain, to save life, and to eradicate diseases,” which without its aid would be incurable and fatal.

It is recorded of Napoleon, that he once said that Larrey was the greatest man in his empire ; generals fit, not only to command in the tented field and to set hundreds of thousands in battle array, but also to wield the destinies of empires and to wear the crown of royalty, he had in crowds,—but there was but one Larrey.

If we look at the present condition of surgical skill, in immediate comparison with the degree of skill attained by the Greeks at their highest advancement, we may appreciate the extent of the progress that has been made, and the obligation which the world owes to those great men, who have devoted their lives to this necessary, but unjustly odious business of anatomical study. The Greeks and Romans very rarely attempted amputation and more rarely with success. They knew of no better mode of stopping hemorrhage than to plunge the mutilated limb into boiling pitch, searing it with a hot iron or some other process, equally barbarous and inefficient. To tie an artery was far beyond their science.

The Roman emperor who grieved that he could not add a new word to the perfect Latin of the Augustan age, would have considered the achievement of this, now simple and common operation, far more useful, desirable and honorable. Aneurism is not an uncommon

complaint, and it now yields in a majority of cases to proper surgical treatment. Galen is the first writer who notices it, and, if the number now annually cured by surgical skill of aneurism be assumed as the number, who annually perished for the want of this aid, for one thousand years prior to Galen's era, some adequate idea may be obtained of the importance of anatomical skill to the safety of human life.

The operation for aneurism, or preternatural dilatation of the coats of an artery, now in practice, was introduced by Mr. John Hunter, the founder of the Hunterian museum, since his death purchased by the British government for 15000*l.* and given to the London College of Surgeons. He boldly determined to operate upon the healthy part of the artery, stopping the circulation there, and by the healthy condition of that part of the artery, assured the completeness of the adhesion of the sides of the vessel, and the consequent obliteration of the artery where diseased.

It was a bold experiment. For aneurism in the ham of the leg, he boldly cut down upon the main trunk of the artery, where it supplies the lower extremity; but bold as the experiment was, it was justified by his accurate knowledge of the whole human economy, and his success has earned him a just rank among the benefactors of our race. Abernethy followed his master in bold operations—he tied the external iliac artery for the cure of aneurism of the femoral, and lately, the internal iliac itself has been taken up; and surgeons have tied arteries of such importance, that they have been themselves astonished at the extent and splendor of their success. Every such operation successfully performed saves a fellow man from inevitable death.

There are circumstances under which it would be impossible for the superficial observer ; for the physician of more experience and expedients, to distinguish between an aneurismal tumor and an abscess. The latter requires to be opened by the knife ; the former, if opened by ignorance, is followed by almost immediate death.

Richeraud has recorded of Ferraud, chief surgeon of *Hotel Dieu*, that he killed a patient by mistaking an aneurism in the arm pit for an abscess. De Haen mentions a person who died in consequence of the opening, against the advice of Boerhaave, of a similar tumor near the knee. Vesalius pronounced a tumor on the back to be an aneurism, but an ignorant practitioner opened it and the patient bled to death. Such mistakes are easy, except to those thoroughly skilled in anatomy, which in all such cases is, therefore necessary to prevent the most deadly mistakes.

The effectual stoppage of the flowing of the blood from the wounded vessels of the human frame is of the last importance. Anatomy has taught the surgeon how this may be done. The ancients, we have already said, were wholly ignorant of it, and when necessity compelled them to the attempt, they resorted to the most cruel expedients, either of which besides being inefficacious, would now be regarded by a humane man as the extreme of cruelty, if applied to the least valuable of the brute creation.

Anatomy has taught that the flow of blood can be stopped by external pressure, applied to the wounded vessel, or if this be not feasible, by boldly cutting down to it and applying a ligature. Paré, in a moment of enthusiasm, supposed he had been led to this discovery by the immediate influence of the Deity.

It has enabled the surgeon to attempt operations, which without it would have been impossible and desperate; but more, it has taught him that where a hemorrhage is apparently so violent as to threaten instant death, the mere pressure of a finger directed by unerring science may check the living torrent, till there be time to tie the vessel up and give nature time and opportunity to repair the loss that has been sustained.

But without that perfect knowledge of the whole human frame, of every vein and artery, muscle, nerve and bone,—that anatomy only can give; the surgeon with the aid of the best apparatus, with the most perfect self possession, would find his efforts defeated, and valuable lives would be lost to society. The surgeon must be ready on the instant to place his finger on the exact spot with certainty, and without pause or hesitation. As much so, as Mr. Maelzel is to touch the secret springs of his Automata, in order to excite the applause and wonder of his spectators. When the ancients attempted amputation, from their ignorance of the true system of circulation and of the mode of stopping the bleeding, the patient usually died under the operation, *in ipso opere*. In the manner in which amputation is now performed, not more than one in twenty of the patients loses his life, taking into view all the cases, even the most desperate, in which it is attempted. In the present practice in England, where amputation is performed at the proper time and in a proper manner, it is computed, that ninety-five persons out of one hundred recover from it. Among the ancients, the operation killed ninety-five out of one hundred. Among the moderns it cures ninety-five out of one hundred; such are the results of dissection and the study of anatomy.

Another disease which is of frequent occurrence, far more frequent than is generally believed; for it is found in all conditions of life, with the rich and poor,—at all ages too; from

“ The infant

“ Mewling and puking in the nurse’s arms”—

Up through every gradation in life to

“ The lean and slippered pantaloon,

“ With spectacles on nose and pouch on side ;”—

or that later and more cheerless scene in the drama of life, which

“ Is second childishness and mere oblivion ;

“ Sans teeth, sans eyes, sans taste, sans everything :—

but the agonizing pains of a disease, which even the chills of old age cannot divest of their violence or activity. This disease is hernia, vulgarly known as “ rupture or burst.”

What is known as strangulated hernia, or such a pressure upon a protruded intestine as prevents its usual and proper motion and evacuations, is a dangerous and sometimes rapidly fatal disease. The uninformed may easily mistake it for inflammation of the bowels, and such a mistake must be almost inevitably fatal. The disease is often frightfully rapid, as well as fatal in its progress. Sir Astley Cooper mentions a case in which a person died in eight hours after being attacked with this disease.

Larrey mentions a case in which a soldier died of strangulated hernia in two hours, and this was the second instance, that had occurred to this eminent surgeon, of such frightful rapidity in this disease. If relief can-

not be given in this complaint at once, in the usual way ; in all bad cases, an immediate and most delicate operation becomes necessary ; delay or indecision may render it useless, and the patient dies. But before the intestine be returned, perhaps an operation may be necessary on that, and this can only be done with safety by those, whose hearts have been emboldened and whose hands have been strengthened by the daily use of the dissector's knife. How necessary then, in this class of diseases, is a thorough knowledge of anatomy ?

Every man's experience tells him that the disease is of very common occurrence, and that it may be his dearest and nearest friend, who will next require the presence of the experienced physician and anatomist, to perform promptly and unhesitatingly a difficult and delicate operation. An experienced practitioner says on this subject ; "I have performed this operation thirty-five times and have often had occasion to lament that I performed it *too late*, but never that I performed it *too soon*."

Within late years the progress of anatomical science has emboldened the surgeon to approach those organs, which have been supposed so essential to life as to be beyond human skill. The wind-pipe is now successfully opened and many valuable lives are saved, which could be saved in no other way, when by accident the wind-pipe has become obstructed.

It is known, that at times diseases of the throat prevail with great mortality, and it is also known that the extent of diseased structure in such complaints is small, compared with many other diseases less fatal ; but the great fatality is owing to the small and essential part of the human frame, in which the diseased action exists.

“The Father of his Country,” George Washington, was cut short of life after a career of usefulness by a fatal disease of this kind. May we not hope, that anatomy properly encouraged may teach the surgeon, how to wage on this fell destroyer of our race a successful war, with the knife and the cautery; which he would in vain attempt with internal medicines and external stimulants.

It would be a glorious triumph for American surgeons to discover and successfully to use a new, bold and speedy remedy for a mortal disease, which cut short the earthly career of the greatest of men and best of patriots;—though not till he had truly “FILLED THE MEASURE OF HIS COUNTRY’S GLORY.”

Within the last twenty-five years we have heard very much of Dyspepsia, a malady of general prevalence and of afflictive results. Quite recently, a cure is said to have been discovered for it by Mr. O. Halstead, a bookseller of New-York city, who has published an interesting account of his process. An examination of this publication has satisfied the committee, that without the lights thrown by anatomical science on the human economy, Mr. Halstead’s mode of cure would not have been discovered. His mode consists:

1st. In a relaxation of the external muscles of the abdomen by external applications; and 2dly, in applying external excitement through the nervous system to the coats of the stomach. Had he not been generally acquainted with the anatomical structure of man, he would never have been brought to the conclusions, he is said so successfully to have applied to practice; and if his theory be sound, he has been most fortunate in possessing enough sagacity to draw the true inferences from the premises, anatomy had supplied him.

Such being the utility—the indispensable necessity both to the physician and surgeon of anatomy ; a knowledge of which is only to be learned first, and then preserved by the frequent and continued dissection of dead bodies :

We are next brought to the inquiry ;—Is there in Dissection any thing wrong or unjustifiable ; or rather is it not highly commendable, and ought it not to receive the countenance and patronage of every liberal and enlightened community ?

This inquiry is beset with difficulty. We encounter at once a prejudice of great prevalence, long established and most deeply rooted. To those earlier nations, whom the infinite wisdom of the Almighty permitted to grope in darkness, with that imperfect knowledge of a future state,—those faint glimmers of hope, which unaided reason could discover, and who were denied that full effulgence of Revelation, which Christianity has made to beam upon us ; the superstitious reverence for dead bodies was made by early lawgivers imperfectly to answer the purpose, that the sanction of a known and certain future and higher state of rewards and punishments now affords. The repose of the soul, its condition in another world, and even its capacity to enter the regions of bliss—however eminent the individual in his life was for virtue,—was supposed to depend on the disposal of the body after death.—Eneas by performing the usual funeral rites hoped to give repose to the soul of the murdered Polydorus :—

“ Animumque sepulchro,
Condimus et magna supremum voce ciemus.”

“ And give the soul its requiem in the grave

“ And sound the melancholy last farewell.”

Beresford's Translation.

The Jews considered him that touched a dead body polluted, and the Egyptians from whom the Jews probably learned this superstition, though they laboured to counteract the course of nature, so far as by embalming to preserve the perishable parts of the human frame from the decay that follows death, still held those, by whom this process of embalming was performed, in horror, and actually stoned them, when they appeared in places of public resort.

The heat of Asia Minor and adjacent regions, whence, as from a centre have diverged the civilized habits and finest fruits and most useful animals, now in common use in aid of the arts of civilized life, was so intense as to render anatomical pursuits dangerous and offensive; and this may have been one of the reasons for this early aversion towards dead bodies, and those who disposed of them. In the progress of civilization into Eastern, and thence to the shores of Western Europe, the early prejudices of the Asiatics accompanied their superior refinement and civilization. While Egypt and Phenicia were highly commercial, enterprising and refined, acquainted with the rudiments at least of civilization;—the Greeks were wholly ignorant of them, lived on the spontaneous fruits of the earth, clothed themselves with skins, which they procured by hunting, and sheltered themselves in the forests or in the caverns of their country. When the Island of Crete was first subdued, by adventurers from Phenicia under Minos, the first step in the civilization of Greece was taken. The Egyptians, who established a Colony at Argos, eleven hundred years, and the Phenicians under Cadmus, who settled Bœotia, ten hundred and fifty years before the Christian era, taught the natives the useful arts, order

and civilization, religious rites and ceremonies, and above all the use of the Alphabet. Thus also was transferred to Greece, thence to Rome, and thence was transmitted through the ignorance of the Dark Ages; and afterwards, in aid of that craft by which monks and priests are maintained in wealth and influence, down to the present age and across the Atlantic,—that superstitious idea of pollution from the contact with a dead body, which the most liberalized mind, even now, finds it hard to shake off.

Pluto first taught the Greeks how to perform the last offices to the dead body: he was in after ages canonized, and to him was assigned the empire of the shades,—the supreme Monarchy of the dead.

Most of the thirty thousand gods of Classic Story have had a like origin,—being originally mortals, canonized for some useful art introduced by them, while living. Ceres was a cultivator of the soil;—Diana loved the chase, and taught the use of its weapons;—Vulcan was a blacksmith; and Bacchus was a right jovial fellow, who knew, how both to make good wine and to drink it.

—To the Greeks the funeral rite was not only the last, but the most indispensable duty to the dead. Believing that interment was necessary for the repose of the soul, the worst imprecation in their estimation was, that a man might die destitute of burial, and of all forms of death, that by shipwreck was therefore the worst. It was unlawful with them to pass by a dead carcase without giving it the forms of interment, even if they went no further than to sprinkle upon it some handfuls of sand. Hence probably were derived some parts of the ritual of Christian burial, as practised by some denominations. Hector, as the greatest aggravation of his vic-

tory over Patroclus, denied him the rites of burial; and Achilles revenged this by denying the same rites to the conquered Hector. It was a part of the punishment of treason to deny the executed traitors the rites of burial. The same punishment was extended to tyrants and to those who laid violent hands on themselves; for all such were considered enemies of their country. Phocion was first unjustly condemned by the Athenians, and after his execution, his body was cast out of Attica, and a heavy penalty decreed against any, who should honor it with interment. Democritus, the Philosopher, was very near being denied burial; being considered a spendthrift, for having spent his inheritance in foreign travel and in searching out the mysteries of nature.

It is ever the common result with the uninformed mind, to bestow that reverence on the external form, which if properly directed, should be given only to the *acting cause and controlling spirit*. The Indian, unacquainted with fire-arms, worshipped the gun of the European, expecting by so doing to deprecate its destructive power.

“Do not speak evil of the dead; no, not though their children provoke you”—was one of the Laws of Solon. It was worthy of that wise lawgiver, and, so far as the funeral ritual of the ancients produced the sacred awe, which it was intended to excite, and the moral influence it was designed to exercise in taming the angry passions of men, destitute of the higher sanctions of revealed truth, so far it was useful and commendable. But its effect in producing a superstitious dread of that clod of earth, which, when deprived of its principle of animation is destined soon to return to the dust, whence it was formed, and be again employed in reproducing some

new form of animated matter, is only one among many illustrations, that history affords, of the weakness of man, unaided by revelation, to appreciate his higher destinies, and to distinguish between what is due to his immortal nature and its mortal and ever changing vesture.

It is not therefore to be wondered, especially as the public mind till within a few years has not been excited to a full discussion of the subject, that there exists in this community, at the present enlightened period, much of this early prejudice against dissection of dead bodies.

“Truth,” says Wollaston, a name dear to science, “is the offspring of unbroken meditations, and of thoughts often revised and corrected.” It certainly requires great patience and resolution to dissipate that cloud of darkness, that surrounds her, or to draw her up from the deep well, in which she lies concealed. If the entire community could be as well satisfied of the necessity of the dissection of dead bodies, to prepare the surgeon to operate or the physician to administer ; as they are of the necessity of surgical operations or of medical doses, in certain cases, however excruciating or disagreeable the remedies in these cases resorted to may be, they would have the same opinions in the one case as in the other, and would be as free from prejudice in one case as in the other ;—they would hold the dissector and the operator in like esteem and honor. But the difficulty is, that the early and powerful prejudice against dissection having compelled medical men to practise it secretly, the community have reaped the benefit of these secret studies, without knowing how the knowledge has been acquired, and the inevitable result has followed,—a common error has prevailed in the whole community, that all the essential prerequisites for medical practice may

be learned without dissection. "*Damnant quod non intelligunt.*" "What I understand," says Socrates, "I find to be excellent: and therefore believe that to be of equal value which I cannot understand." This was a remark worthy of that heathen philosopher, who was imbued with much of a true Christian spirit, though his eyes were never greeted with the light of Revelation, which "Kings and prophets longed to see, but died without the sight." The course of public opinion with most seems to be, in relation to the medical profession, to reverse the wise rule, adopted by Socrates. They believe that part of it, which they understand and whose benefits they feel or see every day, to be excellent and praiseworthy; but that part of it which they do not understand, and which superstition and early error has shrouded in mystery, and armed with dread to their eyes, they believe to be wicked and execrable. Some go farther in their career of prejudice. Not only do they refuse to be convinced, but they seem to be resolved to transfer a portion of their aversion to the only and essential mode of acquiring safe medical science from the pursuit, to those who with more liberalized notions venture to recommend it to public countenance and patronage.

To convince a man against his will is no easy task, but to please him against his will far transcends the compass of human ability. The power of prejudice cannot be easily overrated; it is utterly and essentially incompatible with impartial examination. It comes from early education, from example, from association, or from some incidental circumstance; casting our opinions on a given subject in a particular mould; but making an impression on the mind that is seldom obliterated. We

see it operate with us, who boast of being free from servile attachments, superstitious fears, or baseless prejudices. We see it in our religious, our moral opinions, and in our political contests ; making, in a breath, those men to be esteemed corrupt and unprincipled, whose whole lives have been a glorious career of public service,—“ without fear and without reproach ;”—and with as much ease, affixing upon the brows of passion, ignorance, or selfishness, the bright glories of exclusive Republicanism, profound political science, and refined and most disinterested love of country.

Such is the power of prejudice ;—of popular prejudices—and this power in all its force and freshness,—the Legislator, who would legalize the study of Anatomy, must prepare himself to encounter.

His first duty is to look at the subject as it is, not through the coloured medium, with which his early education, associations or any other extrinsic circumstance may have surrounded it. He must too look at what is to be submitted to the dissecting knife, not as it has been, but as it is, and as it is to be. He must reverence the dead :—but he must understand by this, not to look with superstitious awe upon a dead body, as though the last struggle of expiring mortality, which reduced it to a level with other inanimate matter, had conferred upon it the power of a demon, to be propitiated for good or ill. He must understand by reverencing the dead, to respect the feelings of the bereaved friends, and to be careful of the good character of the deceased—to let the ill he may have done die with him, but the good he may have achieved be remembered—to the honoring of the dead, and to the comforting of the living. This is the true, philosophical and religious reverence for the dead ;

and if there be, as there are, in every populous community, many, of each of whom it may be truly said :

“ Lone, wild and strange, he stood, alike exempt

“ From all affection and from all contempt ;”

assuredly true wisdom would dictate that the physical power and organization, that in life all such had misapplied for any useful purpose, after life had ended should be devoted to the promotion of Science and the advancement of the great stock of human comfort and happiness.

In a letter to Elbridge Gerry, late Governor of this Commonwealth, dated January 26, 1799, THOMAS JEFFERSON writes: “ I am for encouraging the progress of Science in all its branches: and not for raising a hue and cry against the sacred name of Philosophy; for awing the human mind by stories of raw head and bloody bones, to a distrust of its own vision, and to repose implicitly on others; to go backwards, instead of forwards to look for improvement; to believe that government, religion, morality, and every other science were in the highest perfection in ages of the darkest ignorance; and that nothing can ever be devised more perfect, than what was established by our forefathers.” This is sound doctrine, sanctioned by one of the most truly venerable names, that has yet been emblazoned on the world’s history.

Let it be applied to the subject now under consideration, and let not, in this enlightened land, any wise man be deterred by “raw head and bloody bones” stories, from taking those steps, which shall give a proper impulse to anatomical science, and cause it to go “forwards” to the most honorable results.

Decay is the lot of the mortal part of man. Though created in God's own likeness—though gifted with powers, that have enabled him to subdue the animals, to modify the vegetable creation and to make even the elements subservient to his comforts or pleasures,—he still must die; “that longing after immortality” which tells man in all ages and places, there is that within him, which is destined to survive “the wreck of matter and the crush of worlds” we know must be gratified, but in another and better world. Man must die. The seed sown here, like the seed sown in the earth, must decay, must throw off its earthly vesture, before it can burst forth into a new existence;—springing up with a new being and with perennial beauty and vigor, producing a rich and glorious harvest of immortality.

From the period of the helpless infant, through the period of adolescence, up to manhood, his physical progress is upward; then he is for a while stationary; then the down hill of life commences, and soon the scene for this world is shut in forever. Decay soon effaces the “lines where beauty was once wont to linger,” and nothing is left of the mortal part of the proud “Lord of Creation,” but matter—as lifeless, as insensate, as the stones on which we daily tread. But the change does not end here. This lifeless and insensate matter is destined soon to be commixed and lost in the great mass of matter, which composes the earth on which we live, and is again to be employed, in the great business of reproduction for some other of Nature's works. The same particles of matter which made a part of the mortal frame of the fearless Hampden, or, of the not less fearless, but far less patriotic Cromwell, may have since become incorporated with the oaks that overshadowed their

graves : those oaks have been cut down and converted into ship timber, and that timber employed upon those ships perhaps, which bore to our shores, a half century since, the myrmidons of tyranny and oppression.

He, who a century hence plucks a relic from the tomb of Napoleon, or from the tomb of our own far greater and more glorious Washington, perhaps will little think that he may bear away with him some of the same particles of matter, which once formed the noblest hearts and clearest heads, the world had ever seen.

“ Imperial Cæsar, dead and turned to clay,
Might stop a hole to keep the wind away ;
Oh ! that the earth, which kept the world in awe,
Should patch a wall, t’ expel the winter’s flaw !”

But so it is ;—matter remains the same and unchanged as it was created—but its combinations are ever changing, and limited only by the wisdom of the All-wise mind by which they are directed. “ It is not from man alone that nature exacts this tribute of decay. If we extend our observation throughout the universe, we shall discover analogous changes going on in all animate and inanimate matter. There is in all things belonging to our globe, a perpetual tendency to change of form, without the destruction or *annihilation* of any one principle. Whenever animation is finally suspended, the chemical affinities of the mass come into operation, the forms, which lately withstood all external changes, become affected by the slightest vicissitudes of heat and moisture, and speedily putrefy. The co-operation of vast numbers of insects hastens the disintegration ; the aqueous and aerial particles exhale, while the solid and more earthy portions go to aid in the composition of a

richer soil for the benefit of other forms of animated bodies. Thus all things must change, according to their nature, from the granite mountains to the mushroom on the dung-hill. It is the attribute of God alone to be "without variableness or shadow of turning," to be immoveable, while all else is in unceasing motion.

"Tu ! Tempus ab ævo ire jubes,
Stabilisque manens, das cuncta moveri."

Boethius.

All dislike of dissection, so far as the dead are concerned, is entirely unphilosophical ; nay more, it is unworthy of any man who properly appreciates the value of his immortal nature, and the true character and destiny of its habitation in its present sphere of being. Who would not prefer, were his own feelings only concerned, to be useful even after death to his survivors, rather than to fester and decay—to feed the numerous worms and to undergo the slow and disgusting process of chemical decomposition, in the silent recesses, gloomy vaults and mephitic vapours of the Charnel House ? To use again the language of a most eloquent writer and most devoted follower of science ; "as to the *repose* of the tomb, the *disturbance* of the dead, it is mockery of common sense and totally absurd : it impugns the verity of the religion, we believe most holy : it is an indignity offered to the character of the Supreme. What avails your profound interments—your six feet of earth or iron coffin or leaden shrouds ? The moment life departs, every breeze that blows, wafts myriads of insects to the feast :—they deposit their eggs unseen by the friends, who watch at the side of the corpse : committed with the body to the earth, they are dormant only until sufficient heat is evolved by putrefaction to

call them into activity :—they then feed to fatness on the rankling corse : and when ready to assume their perfect shape, work their way to the surface and wing their flight to repeat a similar process on other dead. Tell us not then of the *repose* of the tomb : when bodies we so carefully deposit in earth are not only dissolved by the chemical affinities of their own elements, but serve as food to myriads of insects, and are sooner or later carried abroad upon the four winds of Heaven.”

“ Grant that every precaution be taken : and that we pile defences around these perishing relics, heaping brick or marble, or granite upon them ? It is but deferring the disturbance of the repose a few years longer, until the monuments themselves, perish and are no more, from the uninterrupted operation of those laws, which command all matter to change form. The finest sand washed by the surf on the shore, once formed an integral part of mountains, which might in their day have been called everlasting, but which nature forbade to be immutable.” The same eloquent writer again says “ Some persons, well informed upon almost every other subject associate the idea of anatomy with barbarousness and cruelty. They regard the man who strews the plain with thousands of dead, immolated for the gratification of his ambition as a *hero*, worthy of laurels and applause ; while they view the devoted student and follower of science almost with disgust and are ever ready to join in the clamor against him as a violator of the *repose* of the tomb : a disturber of the dead. Strangest of all, this happens in a Christian land, where devout and faithful ministers of the Gospel are daily employed in declaring that the soul is immortal, the body

corruptible and evanescent and the Creator omnipotent.”

We make one more extract as it affords a concise and complete view of the difficulties, now presented in this Commonwealth to the attainment of medical science. “ The object of dissection is to display the curious and wonderful structure of man, to investigate the causes of disarray and disease, in order to minister to the afflicted : it is to examine the dead before their first great change of form, in order that we may successfully bind up the wounds and mitigate the sufferings of the living. It is not mere curiosity that leads us to endure all the privations and unpleasantness in making such investigations. We come with the respectful and serious earnestness of men, aware of whose presence we are in : we study the instruments of motion that we may prevent it from being suspended : we associate with death that we may preserve life : we submit to sad and solitary silence that we may speak peace and health to the diseased : we breathe noisome, sepulchral vapours and drive the life-blood from our pallid cheeks to stagnate around our hearts, that we may gain the only knowledge, which can efficiently aid us in warding off the thousand ills, that frail mortality is heir to. Surely we have enough to endure, we suffer enough in feeling and health, in foregoing the enjoyments of social life, and in encountering the stupid misrepresentations of the ignorant : might we not be permitted to hope we should escape the prejudices of those, who would fain be esteemed enlightened ? The man who devotes himself to a life of toil and privation for the benefit of his friends and community is lauded for his self-denial, his benevolence and patriotism : but he who transcends the influ-

ence of prejudice and ignorance, who separates himself from his fellow men in order to serve them, who schools his own feelings to endure, what otherwise would be as repugnant to him, as others, and submits without complaint, to all accidents connected with a study so generally misunderstood ; instead of being considered, as he actually is, a benefactor to his race, is too often regarded as something unnatural, insensible to all human emotions, or, worthy of reprehension and injury for the very conduct which gives him the strongest claim upon public gratitude and respect.”

Thus far we have seen that dissection, so far from being wrong or censurable, is in every respect worthy of the encouragement and countenance of the good and enlightened. Its objects are praiseworthy—its ends most important and beneficial to society, and the objections to it unphilosophical and imaginary. But there is a solid and serious objection to giving unlimited range to this branch of Medical Inquiry. It arises from the outraged feelings of surviving friends.

The principle of association is one of the most active and important, and when well governed, one of the most useful principles of the moral and intellectual man. It teaches us to transfer the love we bear to the individual, to the form and features, with which that individual is inseparably associated in our minds. A parent, for instance, loves a child with an affection that knows not end, even with life. It is not the limbs, face or form, that is loved, but the person,—the individual—the immortal soul and its accompanying intellectual powers, moral principles and tender affections. Mutilate those limbs, disfigure that face, or emaciate and change that form, by wasting or nauseous disease, this love knows no change ;

it is neither mutilated, disfigured nor wasted,—the individuality of the person loved remains the same. But still there is for the form, the inanimate remains of those we love, the tenderest feeling; it recalls all that they have said or done for our happiness, and the remembrance of it comes over the affections,

“ Like the sweet South,
 “ That breathes upon a bank of violets,
 “ Stealing and giving odour ;”—

and we inevitably transfer to the outward form of a departed friend, much of that affection which the living individual enjoyed before death. It is the same principle as that which gives, in the eyes of the superstitious, value to the supposed relics of Saints and Martyrs, which makes the spot where the ardent lover first met his mistress, be it as barren and desolate as the isle of St. Helena, a paradise, and the smallest token of reciprocated love,—be it a trinket or a lock of hair, of more imaginary value than the diamonds of Golconda, or the pearls of Ceylon. It is an active, useful principle of human action, given us for wise purposes, and should never be wantonly violated.

And it is to prevent this result, that some change is now required in the laws relating to the Sepulchres of the Dead.—They are violated,—the feelings of surviving friends are outraged—the community is excited,—old prejudices are confirmed and new ones are created, against the pursuit of a laborious and most necessary study. Our young men, who are laboring to prepare themselves to become eminent in the medical profession and to succeed to the places now occupied by Warren, Physic, Chapman, Shattuck, Jackson and other distinguished

physicians, when the common destiny of man shall have added their names also to those of Brooks, Eustis, Dearborn, Warren of Bunker Hill, John Warren and a long list of departed merit;—are expatriated and obliged to resort to foreign schools;—to the great loss of capital as well as science at home,—for no other reason than the want of a more liberal, just and enlightened legislation on the subject of Anatomy. When, therefore, the excitement, which exists at times in the community, is appealed to as an argument against legalizing anatomy, it shows that the individuals thus using it, do so without adequate reflection.

Why is it that graves have been recently violated in Milton, Roxbury and in this city?—Not long since in a town on the Connecticut River, and again recently in Vermont?—Why is it that we are horrified with the truly lamentable account of the husband, almost frantic by learning that the remains of her he loved living, and whose memory he still hallows, have been removed from the place where he had deposited them,—that the lifeless form of her whom, while living,

“ He would not suffer even the winds of
Heaven to visit too roughly,”

are to be exposed to the rude gaze of strangers. Such things ought not to be; so long as the nature of man remains unchanged—and so long as association retains its power over the affections, no circumstances can excuse or justify them;—no, not even the achievement of the proudest discovery that medical science can boast.

But we again ask why these outrages upon the good feelings and the moral principles of society?

We answer unqualifiedly: because your law relating

to the sepulchres of the dead, operating indirectly on the study of anatomy, offers a premium to immoral, desperate men to run any risk but that of detection, to obtain subjects for dissection. In an examination before a committee of the British Parliament, an eminent surgeon, Sir Astley Cooper, said he could obtain the body of any man in England, however high in place or influence, for dissection, provided he could pay enough for it.

The same remark here applies with almost equal truth: give money enough and there may be found desperate men, who would enter any mausoleum, however strongly barred, and rifle its contents. If we would save the community from the most unhappy excitements, the dying from the most painful apprehensions, and secure effectually the sepulchres of the dead not only from violation, but what is worse, a constant fear that they may be violated, we must revise our legislation on the subject, and devise some mode that with a strict regard to equal rights of the community, will provide a supply of subjects for anatomical study.

III. An important consideration here presents itself in the inquiry, who has the greatest interest in facilitating the study of anatomy.

Is it the medical student, or the community; and if the community, is it the few, or the great majority, that have the most special interest?

A little reflection will, we think, render it apparent, that the Medical Profession are the least interested in any change of law to afford facility for the study of anatomy. We, of course, lay aside all considerations of professional pride in making this estimate. But whether anatomy be studied or not, it is certain that the amount of disease will not be diminished—the amount of human

suffering may be much increased—accidents will still happen, and if we have not among us physicians and surgeons to practice, *according to knowledge*, we shall have enough practitioners, to kill *according to rule*. Physicians instead of studying facts and observing nature, as she operates both in health and sickness, will learn theories, or make them, according as memory or imagination may predominate in each individual; and although the value of their services would be much less, the amount of their fees would not be reduced.

On the other hand, the community could not be so skilfully or faithfully served, and, the lives of many invaluable persons would of necessity be sacrificed for the sake of an illiberal prejudice. The rich, the few to whom accident or inheritance or superior sagacity had given ample means of commanding the best services in the United States or Europe, would not suffer in this respect. It would be the middling classes, and especially the laborious and deserving poor, who are from their daily vocations compelled to be exposed to accident, and to those calamities, which particularly require the aid of the surgeon and of precise anatomical science. Expel by your laws anatomical science from the limits of Massachusetts,—like the Egyptians, follow its professors with stones and maledictions, it would be the poor and great majority who would suffer from such fatuity and phrensy. The man rolling in his wealth, would proceed to New-York, to Philadelphia, to London, or to Paris, to obtain the aid required for his relief, or he would summon and obtain the aid from one of those cities to relieve him here, were he unable to proceed thither; he is able to pay the price, be it ever so exorbitant. But the man in middling circumstances can-

not beggar his family to purchase relief—the poor man were he to sell himself and his family to slavery could not command the means; *and they die*:—they are lost to the community; and lives perhaps, far more valuable than that of the rich man, are cut off in a career of usefulness, which might have been prolonged by a liberal policy towards anatomical science. It should ever be remembered, that the labouring classes, in proportion to their numbers, are far more likely than any other class in the peaceful pursuits of life, to require the interference of surgical aid or of that medical aid, which is dependent on a knowledge of Anatomy. They bear heavy burdens, they scale giddy heights, they use at times dangerous tools and instruments, and are in fact more or less at the hazard of their lives in the pursuit of their daily vocations. It is therefore the great majority of the community, embracing the agriculturist, the manufacturer, the mechanic and the mariner, that have a deep, direct and personal interest in the promotion of anatomical science to its highest attainable perfection.

IV. We have no direct law in this Commonwealth upon the subject of Anatomical Dissections. But there are two laws, which have an important, though not an immediate bearing on this subject. In 1815 a law was passed for the protection of the sepulchres of the dead, which punished the exhumation of any dead body, or the knowingly and wilfully receiving, concealing or disposing of any such dead body, by a fine of not more than \$1000, or imprisonment for not more than one year.

Before the passing of this act, several cases at common law were brought before the Supreme Judicial Court: in all of which, where there was a conviction,

the party was punished. Where it appeared that the exhumation was for subjects for Dissection, a small fine was imposed. The last case of this kind was against a now eminent physician, then of Essex County, in which several important law points were raised, but the case does not appear to have been reported. Under the statute, there have been several prosecutions, convictions and punishments. A similar statute exists in New-Hampshire and in Vermont. In N. Hampshire the punishment is by fine, not to exceed \$2000, whipping not to exceed 39 stripes, or imprisonment not to exceed one year—all or any of these punishments to be inflicted at the discretion of the Court.

The Vermont statute varies from that of New-Hampshire only in the fine, which is \$1000 instead of \$2000. The other provisions are the same.

In the case of *Rex vs. Lynn*, it was decided by the Court of Kings Bench that to take a body from the grave for any purpose, was a misdemeanor at Common Law. The punishments inflicted by the courts, when the bodies have been taken for purposes of dissection, have been generally a small fine. But, quite recently, respectable individuals have been tried in England for receiving, with intent to dissect, a dead body, knowing the same to have been unlawfully disinterred:—so that it is now said, that scarcely a student or teacher of Anatomy can be found in England, who under the law as now interpreted, is not indictable for a misdemeanor. With equal truth it may be said here, that in Massachusetts a student or teacher of Anatomy cannot be found who is not indictable under the statute of 1815.

While the Law of this Commonwealth is thus severe against the exhumation of dead bodies, which we shall

hereafter show, is the only mode now of obtaining subjects for dissection, another law has been passed, by which every practitioner of Medicine is required to obtain a degree at Harvard University, or licence from the Medical Society, before he can maintain an action for any debt for his professional services. The licence or degree is given on an examination, and one of the prerequisites required for this examination is, that the applicant shall have gone through such a course of dissection as shall give him a minute knowledge of Anatomy. So that our laws now involve the manifest absurdity and injustice of requiring, on one page of the Statute Book, certain prerequisites for the honorable practice of the Healing Art, and on another page of the same Statute Book, of prohibiting under severe penalties, the acquisition of the means, by which only these essential prerequisites of Medical education and skill can be learned.

The most deplorable effect of the present condition of our laws is to create a class of men in the community—the exhumators of dead bodies—who are remarkable for desperation of character, and who are by their employment fitted for other violations of the established laws and peace of the community. Were we to imagine an employment best calculated to brutalize the whole man, we should select that of the desperate “body snatcher;” who with the penalties of the laws and the execrations of society in bold relief before him, still musters enough of courage and desperation to prowl around grave yards in the dead of the night, regardless how much the feelings of society may be outraged, so that he can obtain the means of securing the price of his iniquity. Such a man—

“Is fit for treasons, stratagems and spoils,
The motions of his spirit are as dull as night.
And his affections dark as Erebus.”

The number of this class of men is already considerable among us, and their desperate character may be judged of from the following circumstance, of which your committee have been credibly informed. They are generally men rendered desperate by their vices. An eminent surgeon of this city, some time since, when the difficulty of obtaining anatomical subjects was at its height, was offered subjects at a given price by an individual of this character. The surgeon referred to, not knowing his character, accepted his offer and the price was agreed to. But what was the surprise of this eminent surgeon in learning after a few days, that this person had boldly broken into and robbed private tombs of their contents. Of course, he ordered him to desist from his impolitick and unjustifiable proceedings, and the individual was soon compelled to abscond, to avoid the penalties of the law. This circumstance shows conclusively, that the present state of the laws, unless anatomy is to be abandoned, offers an indirect inducement to the most deplorable outrages on the feelings of surviving friends, and that, so far from protecting the sepulchres of the dead, it indirectly induces their violation. Speaking of the exhumation of the dead, the able report on anatomy, made in 1828, to the British parliament, remarks:—“Nearly the whole of the individuals” (persons occasionally employed in raising dead bodies for dissection) “are occupied also in thieving, and form the most desperate and abandoned class in the community. If with a view to favour anatomy, exhumation should be allowed to continue, it appears

almost a necessary consequence that thieves also should be tolerated." "It should seem useless, however, with a view to exhumation to endeavour to execute the existing laws with increased severity, or to enact new and more rigorous ones. The effect of interpreting and executing the laws with increased rigour has been, not to suppress exhumation, but to raise the price of dead bodies and to increase the number of the exhumators. So long as there is no legalized mode of supplying the dissecting schools, so long the practice of disinterment will continue: but if other measures were devised which would legalize, and ensure a regular plentiful and cheap supply, the practice of disinterring bodies, and of receiving them, would of necessity be entirely abandoned." This reasoning applies with full force to the condition of things in this Commonwealth. It is idle to hope to accomplish the protection of the sepulchres of the dead, unless some provision be made for a supply of anatomical subjects. The increased severity of the laws against their violation will only enhance the price of subjects;—they will still be obtained. Ten years since the price of subjects was from \$5 to \$10 each;—now, it is from \$15 to \$20. From 15 to 20 subjects are annually required for the medical school in Boston. The community under the present law will from time to time be outraged by excitements, painfully distressing, and a class of men will increase among us, who will have learned among the dead, that hardihood of character and recklessness of legal restraint, which shall make them most dangerous to the living.

The only legalized mode of supplying subjects for dissection is the sentence or order of the Supreme Judicial Court of this state, and of the Circuit Court of

the United States, in capital convictions within their respective jurisdictions. The insufficiency of this supply may be inferred from the statements of the secretary of the Commonwealth, and of the clerk of the United States District Court. The secretary of the Commonwealth states, in answer to inquiries addressed him by the chairman of this committee, that the whole number of executions or suicides of convicts from January 1, 1800 to December 31, 1830, is but 26, less than one a year. The clerk of the United States District Court, in reply to like inquiries from the chairman states, that from the adoption of the Federal constitution and the first organization of the Federal Courts, down to the present time, the whole number of executions and of suicides of convicts, sentenced by that court in this District, is but fourteen, being about one in three years. The absolute inadequacy of this supply, from either or both of these sources for any useful purpose, added to the consideration that the infliction of dissection as a part of the sentence in capital cases, has done much to create, and will do much to continue, the prejudice against anatomy existing in the community, has suggested to your committee the expediency of a different provision from that now existing, in relation to the dead bodies of those capitally convicted, so far as the subject is within the control of the State legislation. If dissection be no longer inflicted by our State courts, as a terror and disgrace,—full and free discussion of this interesting and important topic may, we hope, soon disabuse the public mind of its worst prejudices in relation to it. Your committee cannot doubt, that the deservedly eminent judge and scholar, who holds the United States courts in this Judicial District, will so far as his important influence extends on this and every other subject, be

found against unfounded prejudice, and on the side of liberal science and true philosophy. To use again and to adopt the language of the British parliamentary Report, "The committee would be very unwilling to interfere with any penal enactment which might have, or seem to have, a tendency to prevent the commission of atrocious crimes: but as it may reasonably be doubted whether the dread of dissection could be reckoned among the obstacles to the perpetration of such crimes, and as it is manifest that the clause in question must create a strong and mischievous prejudice against the practice of anatomy, the committee think themselves justified in concluding that more evil than good results from its continuance."

V. From the preceding remarks and the facts already stated, the inference is very easy, that in England, the study of Anatomy is much embarrassed by the there established laws. Such is the fact: but the most enlightened politicians and philosophers of that country—second to none other in science, enterprise and intelligence—are now at work, preparing the way for a more liberal system.

In France—a country to which every American heart turns with affection and kindness—and whose recent glorious efforts in the hallowed cause of freedom and the "rights of man," has refreshed our old, and awakened in us a crowd of new attachments;—with a liberality and love of true science, which for the last now almost half century has distinguished her legislation,—has given ample encouragement and facilities to the study of Anatomy. The law upon the subject of taking away dead bodies for any purpose among the ancient Franks, was extremely severe—outlawry and other severe penalties.

The system now established at Paris, is the following :

“ The administration of all the Hospitals at Paris, since the period of the Revolution, has been confided to a public board of management. The rule at the Hospital is, that every patient who dies shall be attended by a priest, and that, after the performance of the usual ceremonies of the Catholic Church, the body shall be removed from the Chapel attached to the Hospital, to the dead room, and there remain for twenty-four hours, if not sooner claimed by the relatives. Bodies may be examined after death, by the medical officers attached to a Hospital, in order to ascertain the cause of death ; but may not be dissected by them. A body, if claimed by friends after examination, is sewed in a clean cloth before being delivered to them. If not claimed within twenty four hours after death, after being enveloped in a cloth in similar manner, it is sent in the manner hereinafter described, to one of the dissecting schools.”

“ There are no private dissecting schools at Paris, but two public ones : that of the *Ecole de la Medicine* and that adjoining the *Hopital de la Pitie*. These are supplied exclusively from the different Hospitals and from the institutions for maintaining paupers, the supply from certain of these establishments being appropriated to one school and that from the remaining establishments to the other.”

“ The distribution of subjects to the two schools is confided to a public officer, the *Chef des Travaux Anatomiques*. He causes them to be conveyed from the Hospital, at an early hour, in a covered carriage, so constructed as not to attract notice, to a building at the schools, set apart for that purpose. They are then distributed by the *prosecteurs* to the students ; and after

dissection, being again enveloped in cloth, are conveyed to the nearest place of interment.”

“ The students at the *Ecole de la Medicine* consist of young men, who have distinguished themselves at a public examination, though the person at the head of the establishment is also allowed to admit pupils to dissect. The school of La Pitie is open to students of all nations, who, on entering themselves may be supplied with as many subjects as they require, at a price varying according to the state in which the body is, from three to twelve francs ; priority of choice, however, being given to the *elevés internes* of the different hospitals, and the subjects being delivered to them at a reduced price. English surgeons were here permitted, till lately, to engage private rooms for the purpose of lecturing on anatomy to students of their own nation, and to superintend their labours in the dissecting room. From the protection and facilities which have thus been afforded to the study of anatomy at Paris, it has become the resort of the medical students of all nations : THE PRACTICE OF EXHUMATION IS WHOLLY UNKNOWN : and the feelings of the people appear not to be violated.”

This system is a philosophical, liberal and truly Christian one :—it makes the mortal and earthly frame what it ought to be—subservient to the intellectual development, improvement and power of man. It does not attempt to cast around it a sort of superstitious awe—to subdue and render the soul subject to a mere form of inanimate nature—in a manner which religion does not require and which reason cannot justify. At the same time, it does not attempt to destroy—but carefully respects, those tender and powerful associations, which are stronger than reason and which improve the

heart and soften the feelings of the least sensitive breast. Proceeding on the true principle, that dissection is only objectionable so far as it may wound the sensibilities of the surviving friends of the deceased—it sets apart for this useful and not dishonorable office the remains only of those, who have not a friend nor relative to claim the privilege of paying the last sad office to their mortal remains. It thus runs parallel with public sentiment; and at the same time the great interests of science and humanity are advanced—the national glory is brightened by improvements and discoveries of great importance and magnitude, and Paris is made the Grand Emporium of Medical Science, both for Europe and America. The number of students annually licensed in this Commonwealth, is about fifty. What portion of these are obliged to resort to Paris to complete their education cannot be ascertained, but it is known to be a very considerable portion.

Your Committee have thus at length examined and discussed the interesting subject entrusted to their charge. They have gone thus fully into it, because they were aware it was enveloped in the mists of dark prejudice—that the community were too generally uninformed in relation to it; anatomical pursuits having been heretofore, we think, erroneously, conducted secretly, and been surrounded in the eyes of the great mass of the community with a sort of mystery. This might do in an age of empiricism;—but in an enlightened age, nothing is more unwise for those, who covet a liberal legislation on a matter of liberal science, than to court the appearance of secrecy, or of a shrinking from the public gaze. Truth loves the light,—it invites investigation, and, in relation to the subject of anatomy, it on-

ly requires to have the public mind put into vigorous action, by proper impulses, and there cannot be a doubt of a result, such as every reflecting mind and lover of science may approve. There is nothing more true than the old maxim, *omne ignotum pro magno habetur*. Let the public be made acquainted with the subject, and brought into immediate contact with it, and they will understand its true proportions, and no longer regard it as some gigantic monster, possessed of the cruelty of the tiger and the appetite of a cannibal.

In this report, we have traced the progress of anatomical science from the first and rude attempts of the Greeks, through a slow progress of near 2000 years, when it may be said to have assumed the character of a science, studied and taught upon philosophical principles. We have shown its importance to the physician, as well as to the surgeon; we have farther shown that it is to be learned by dissection only. We have shown that dissection is in every respect a laudable employment, except when so followed as to outrage the feelings of the surviving friends—that a change in the law, operating now indirectly on the practice of dissection, is the only mode of preventing the frequent recurrence of such outrages; that the “working-men” in the community are specially interested in affording every facility for the acquisition of a knowledge of anatomy; that the laws now existing in this Commonwealth exhibit the manifest inconsistency of requiring of every medical practitioner a degree of knowledge, that other provisions of the law render it impossible for him to obtain at home, without a violation of the laws; that exhumators of dead bodies, a class a desperadoes, are in consequence growing up in our community; that independent of the impolicy of

making dissection ignominious, by ordering those executed for capital crimes to be dissected, the supply so obtained is wholly inadequate to answer any useful purpose; and we have then shown that for almost fifty years a liberal and philosophical system had been pursued in France on the subject of anatomy and dissections, which had there effectually secured the sepulchres of the dead from violation—saved the feelings of the people from painful excitements and deplorable outrages, and besides making France the grand resort from Europe and America for the attainment of medical and surgical science, has made the amount of medical skill in France far to surpass that of any other nation in Europe or America.

VI. It now becomes the duty of your Committee to present their own conclusions, on this whole matter, which they would recommend to the sanction of the General Court. They may be thus stated: That—

Ist. Anatomy is an important science, whose successful cultivation and improvement is of essential interest to all classes of the population of this Commonwealth:

IId. Dissection for anatomical purposes is highly laudable, and deserving of public encouragement, so far as it can be done without violence to the feelings of surviving relatives or friends.

IIId. That the Laws of the Commonwealth, which now act indirectly on the study of anatomy, require change, and that the study of anatomy should be legalized.

I. For this purpose the Committee propose so far to alter the statute of 1815, for the “protection of the sepulchres of the dead” as to authorize the proper Municipal authorities, in the city of Boston, and in the sev-

eral towns of the Commonwealth, to deliver to any physician, regularly licensed according to the laws of this Commonwealth, such dead bodies as may be required to be buried at the public expense and which shall not be claimed by any *one* person, *whether kin or friend or acquaintance*, within twenty-four hours from and after death. This permission should be accompanied with restrictions, that the physician so receiving a subject, after he had used it for scientific research, should be bound to have its remains properly interred, with the religious funeral rites, that a Christian people ought to require and must approve.

II. The proviso, authorising the Courts to dispose of bodies of executed criminals for dissection should be repealed.

III. That the penalty for disinterring dead bodies or for receiving them, knowing them to have been so disinterred, should be increased, so as effectually to guard against any attempt to transcend those limits for the supply of anatomical subjects, which this enlightened Legislature may designate. These views the Committee have combined in a bill, which is appended to this Report.

Your Committee do not believe that any substantial objections, can be found against such provisions. If it be said, that the idea of being used after death for dissection will harrow up the feelings of those, who are subjects for the public charity while alive, we answer that this objection is wholly unphilosophical; and besides it will not bear close examination. It was once eloquently remarked to a former Legislature by a distinguished member of the House, that, he never could vote to treat poverty as a crime. To this honorable

sentiment, your Committee unqualifiedly subscribe. To violate it by any enactment would be virtually to disregard a cardinal principle in our Republican System—that “all men are born free and equal”—and it would be farther in disregard of an enlightened self-interest. Laying aside the fluctuations of business, and the danger of unforeseen accident: from the changes and divisions of property by descent, the family that is rich now may soon be numbered among the poor. Such events are of frequent occurrence, and it is right it should be so. Lazarus as well as Dives, in the equal distribution of good and evil by Providence, should have each his share of the good things of life. No Legislator, therefore, however prosperous, rich or successful now, could agree to any inequitable legislation in relation to the poor without being prepared, ultimately to legislate against,—if not himself—his successors and immediate representatives.

Of those, who depend on the aid of public charity for support, and who also may be justly ranked among the meritorious poor, reduced by disease, accident or incapacity—all have friends, if not relatives, who feeling a strong and lively sympathy would always seek the opportunity of testifying it by paying to their earthly remains, the last sad office of friendship. All such would be as inviolably protected in the house, appointed for all living,—as the proudest and most powerful of their more fortunate fellow-men. Those, whose bodies would be unclaimed, are the vicious and depraved; and perhaps foreigners,—but probably very few of this class, because an honorable and active feeling of nationality among other resident foreigners would prevent it. The unclaimed bodies of the vicious then, would afford the

chief supply of subjects for anatomical dissections. And can an intelligent Legislator, divesting himself of prejudice, refuse to give this aid to the cause of science and of science too, essentially and most deeply important to society and especially to every "working man" in society? Can it be wrong to make the insensible, material organization of those, who by their own vices had been made, while living, dependent on society for support, to contribute to the well being of society after death? Take for instance the abandoned, shameless prostitute,—who had no respect for herself when living—the common trull—of "the general camp, pioneers and all,"—or, the thriftless vagrant—the depraved sot—who has "put an enemy into his lips to steal away his brains," till he has become mentally, morally and physically corrupted and emasculated;—a living caricature of his own species;—each of them too, by their evil propensities sent prematurely down to the grave—"unwept and unhonored." They shared the benefits, but bore none of the burdens of the social state and of civilization—perhaps they had terrible maladies alleviated and life prolonged by medical and surgical science;—supplied at the public expense;—and shall it be denied to the patient professor of that difficult and responsible science to make use of the physical organization of such after death, to enable him to extend his own usefulness and the limits of human knowledge? Religion says; no. Reason says; no. And shall an enlightened Legislature, giving itself up to the control of prejudice, refuse what both Religion and Reason approve? It will be borne in mind, that every dissection will be made under the eye of a responsible physician;—that every respect will be paid to the prejudices of the public mind—and that religious

rites and honorable interment will be performed for the remains of every subject, after it may have answered the purposes of science.

It appears from a statement obtained at the Boston Health Office, that from January 1, 1830, to December 21, inclusive, there were 194 burials at the expense of the City, and also in addition, 88 burials in the Tombs of the House of Industry at South Boston. The number of burials of the same description in other towns of the Commonwealth would be considerable, but less in proportion to the population. There can be no doubt the supply of subjects would be ample.

Dissection, by being no longer made a part of the sentence of our courts in cases of capital convictions, would gradually lose in the public mind that association, which now, above all others, makes it odious. And above all, exhumation would wholly cease; there would be no need of it—and thus a prolific source of painful disquietude, and of injurious excitement would be effectually closed up in our happy and generally quiet community.

By giving the proposed facility to dissection, we may hope too, soon to witness here new improvements in the science of Anatomy, which shall redound to the honor of our country as well as to the benefit of the human race. Although England, France and Germany—by the labors of Hunter, Bichat and Boerhaave and their many other great anatomists, have done much to promote anatomical science—much no doubt remains yet to be done;—and if facilities be afforded for its study, we have every reason to believe, that some one of our anatomists may in the course of events achieve for himself as enviable a rank in that science, as Franklin held

in Natural Philosophy and as Bowditch now holds in the pure Mathematics. The connection between the capillary system and the nervous system, for instance, is suspected, but not yet demonstrated. What a glorious achievement for an American Anatomist to make the demonstration? Descriptive anatomy and comparative anatomy open a wide field for the student, provided he can have the facilities for cultivating it with success.

Your Committee cannot close this report better than by again calling the serious and earnest attention of the Legislature to the intrinsic importance of the subject, they have endeavored to illustrate.

A knowledge of anatomy is necessary to the painter and statuary—the Lawyer and Judge—to the theologian—what more admirably illustrates the wonder, power and goodness of God? It was the contemplation of man, that inspired the Heathen Philosophers with sentiments so noble, as to have led some to suppose that they must have borrowed them from the writings of Inspiration. We cannot more forcibly present this subject to the consideration of the House, than by imagining that the human frame was transparent, and that instead of the mere outward form and features, we were permitted to contemplate the whole of our wonderful organization—the play of the muscles—the vibrations of the nerves—the coursing of the blood—the motions of the viscera—the distentions and actions of the brain—and in a word, the whole of that nice machinery in vigorous and constant action—the derangement of the smallest portion of which is felt throughout the whole man. Could any thing be more wonderful?

“Astronomy and anatomy” says Fontenelle “are the studies which present us with the most striking views of

the two greatest attributes of the Supreme Being. The first of these fills the mind with the idea of his immensity, in the largeness, distances and number of the Heavenly Bodies: the last astonishes, with his intelligence and art in the variety and delicacy of animal mechanism." The learned, pious and eloquent Paley remarks, "It has been said that a man cannot lift his hand to his head, without finding enough to convince him of the existence of a God. And it is well said: for he has only to reflect, familiar as this action is, and simple as it seems to be, how many things are requisite for the performing of it—how many things which we understand; to say nothing of many more, probably, which we do not: viz. first a long, hard, strong cylinder to give to the arm its firmness and tension, but which being rigid and in its substance inflexible, can only turn upon joints: secondly, therefore, joints for this purpose; one at the shoulder to raise the arm; another at the elbow to bend it: these joints continually fed with a soft mucilage, to make the parts slide easily on one another, and holden together by strong braces to keep them in their position; then, thirdly, strings and wires, that is, muscles and tendons, artificially inserted for the purpose of drawing the bones in the directions, in which the joints allow them to move. Hitherto we seem to understand the mechanism pretty well, and understanding this, we possess enough for our conclusion: nevertheless, we have hitherto only a machine standing still;—a dead organization—an apparatus. To put the system in a state of activity; to set it at work; a further provision is necessary, viz. a communication with the brain by means of nerves. We know the existence of this communication, because we can see the communicating

threads and can trace them to the brain : its necessity we also know ; because, if the thread be cut, if the communication be intercepted, the muscle becomes paralytic ; but beyond this we know little : the organization being too minute and subtle for our inspection."

"To what has been enumerated as officiating in the simple act of a man's raising his hand to his head, must be added, likewise, all that is necessary and all that contributes to the growth, nourishment and sustentation of the limb ; the repair of its waste, the preservation of its health, such as the circulation of the blood through every part of it, its lymphatics, exhalants, absorbents. All these share in the result, join in the effect, and how all these or any of them came together without a designing disposing Intelligence, it is impossible to answer."

Such is the religious and true philosophy of that study of man, which is now commended to the patronage and countenance of an intelligent Legislature. Wonderful as is inanimate nature in her works ; in combination or in detail, beautiful and sublime as they are—they are inferior—far inferior, to the grand masterpiece of the creation, man. "God created man in his own image—in the image of God created he him—male and female created he them." "How graceful his body ! How sublime the glance of his eye ! How vast his reasoning, his inventive and his ruling faculties ! Contemplate his exterior :—erect, towering and beautiful.—How does the present but concealed Deity, speak in his countenance with a thousand tongues. God of perfection ! How supremely, how benevolently hast thou displayed thyself in man ! Survey his soul beaming, his divine countenance : the thoughtful brow,

the penetrating eye, the spirit-breathing lips, the deep intelligence of the assembled features! How they all conspiring speak! What harmony! A single ray including all possible colors! the picture of the fair, immeasurable mind within!"

It is the study of man, in all his wonderful adaptations of cause to effect, of means to ends—the study of this noblest work of the Divine Intelligence, and as the necessary consequence, new conquests in the realms of true science and new discoveries for curing or alleviating the ills that “flesh is heir to”—that are by your committee most respectfully, but earnestly and repeatedly commended to the patronage and protection of an enlightened Legislature; and your committee fully believe, that whatever provisions on this interesting subject the Legislature may adopt, they will receive the support and countenance of the intelligent and liberal community, whom it is our high privilege to represent.

And is not an improved and liberalized legislation, in favour of anatomical science, due to the high character of our constituents for liberality and intelligence. Massachusetts has ever been foremost in overcoming prejudice and in pressing forwards in the onward march of improvement. The men, who first settled Massachusetts, were far above the religious and political prejudices of their age. The men of Massachusetts, in the perils of the revolution, were ever foremost in battling for the cause of freedom, and in resisting those prejudices in favour of the rights of the British Monarch, which made some of the best hearts in America quail and shrink from an irrevocable “Declaration of Independence.” In the constitution of Massachusetts, the encouragement of “Arts, Sciences, and all good litera-

ture" is expressly declared to be a part of the duty of the legislature. When therefore, it is apparent, that a science, perhaps more deeply than any other, interesting to every portion of the community, is suffering and languishing for the want of a liberal legislation, is not the honor of the Commonwealth, as well as the general interests of science, civilization and humanity, concerned, that the Legislature should promptly interfere, to extricate this important branch of human knowledge from the trammels and incumbrances, which prejudice has placed around and upon it?

All of which is respectfully submitted. By order of the select committee.

JOHN BRAZER DAVIS, *Chairman.*

Commonwealth of Massachusetts.

In the year of our Lord One Thousand Eight Hundred
and Thirty-One.

AN ACT

More effectually to Protect the Sepulchres of the Dead,
and to Legalize the Study of Anatomy in certain
cases.

1 SECT. 1. **BE** it enacted by the Senate and House of
2 Representatives in General Court assembled, and by
3 the authority of the same, That if any person, not be-
4 ing authorized by the Board of Health, Overseers
5 of the Poor, or Selectmen in any town of this Com-
6 monwealth, or by the Directors of the House of In-
7 dustry, Board of Health, Overseers of the Poor, or

8 Mayor and Aldermen of the City of Boston, in said
9 Commonwealth, shall knowingly or wilfully dig up,
10 remove or convey away, or aid and assist in digging
11 up, removing or conveying away any Human body,
12 or the remains thereof, such person or persons so
13 offending, on conviction of such offence in the Su-
14 preme Judicial Court of this Commonwealth, shall
15 be adjudged guilty of felony, and shall be punished
16 by solitary imprisonment for a term not exceeding
17 ten days and by confinement afterwards to hard la-
18 bor for a term not exceeding one year; or shall be
19 punished by a fine not exceeding two thousand dol-
20 lars to enure to the benefit of the Commonwealth,
21 and by imprisonment in the common jail for a term
22 not exceeding two years at the discretion of the
23 Court, according to the nature and aggravation
24 of the offence.

1 SEC. 2. *Be it further enacted*, That if any person
2 shall be in any way either before or after the fact,
3 accessory to the commission, by any person or per-
4 sons of the offence described in the first section of
5 this Act, such person or persons, shall be adjudged
6 and taken to be principals, and shall be on convic-
7 tion in the Court aforesaid, subject to the same pun-
8 ishments and forfeitures as are in said first section
9 provided.

1 SEC. 3. *Be it further enacted*, That from and af-
2 ter the passing of this Act, it shall be lawful for the
3 Board of Health, Overseers of the Poor and Se-
4 lectmen of any town in this Commonwealth and for
5 the Directors of the House of Industry, Board of
6 Health, Overseers of the Poor and Mayor and
7 Aldermen of the City of Boston in said Common-

8 wealth, to surrender the dead bodies of such persons
9 as may be required to be buried at the public ex-
10 pense to any regular physician, duly licensed ac-
11 cording to the Laws of this Commonwealth, to be
12 by said physician used for the advancement of ana-
13 tomical science: Preference being always given to
14 the Medical Schools, that now are or hereafter may
15 be established by Law in this Commonwealth, du-
16 ring such portions of the year as said schools or ei-
17 ther of them may require subjects for the instruc-
18 tion of Medical Students: *Provided always*, That
19 no such dead body shall in any case be so surren-
20 dered, if within twenty-four hours from the time of
21 its death, any one or more persons, claiming to be
22 kin, friend or acquaintance to the deceased, shall
23 require to have said body inhumed; but said dead
24 body shall be inhumed and when so inhumed, any
25 person, without the authority specified in the first
26 section of this Act, disinterring the same or being
27 accessory as is described in the second section of this
28 Act, to its exhumation, shall be liable to the pun-
29 ishments and forfeitures in this Act respectively pro-
30 vided: *And provided further*, That every physician
31 so receiving any such dead body, before it be lawful
32 to deliver him the same, shall in each case give to
33 the Mayor and Aldermen of the City of Boston, or
34 to the Selectmen of any town of this Common-
35 wealth, as each case may require, good and suffi-
36 cient bond or bonds, that each body, by him so re-
37 ceived, shall be used only for the promotion of ana-
38 tomical science; that it shall be used for such pur-
39 pose only in this Commonwealth and so as in no event
40 to outrage the public feeling, and that after having

41 been so used the remains thereof shall be decently
42 inhumed.

1 SECT. 4. *Be it further enacted,* That from and af-
2 ter the passing of this Act, it shall be lawful for any
3 physician duly licensed according to the Laws of
4 this Commonwealth, or for any Medical Student un-
5 der the authority of any such physician, to have in
6 his possession, to use and employ human dead bod-
7 ies, or the parts thereof, for purposes of anatomical
8 inquiry or instruction.

1 SECT. 5. *Be it further enacted,* That the Act
2 passed March 2, 1815, entitled "An Act to protect
3 the Sepulchres of the Dead," and also all other Acts
4 or parts of Acts, contravening the provisions of this
5 Act, be and the same hereby are repealed.

LIST

OF

DOCUMENTS ACCOMPANYING REPORT

A	CIRCULAR TO PHYSICIANS OF MASSACHUSETTS
B	“ “ “ OUT OF MASSACHUSETTS
1	LETTER FROM . . . E. D. BANGS
2	“ “ . . . J. W. DAVIS
3	STATEMENT FROM . . . BOSTON HEALTH OFFICE
4	LETTER FROM . . . G. C. SHATTUCK
5	“ “ . . . AMOS BANCROFT
6	“ “ . . . JOHN BARTLETT
7	“ “ . . . AMOS HOLBROOK
8	“ “ . . . JOSEPH SAMPSON
9	“ “ . . . JOSHUA FROST
10	“ “ . . . H. H. CHILDS
11	“ “ . . . DANIEL THURBER
12	“ “ . . . B. L. OLIVER
13	“ “ . . . A. L. PIERSON
14	“ “ . . . SAMUEL L. MITCHELL
15	“ “ . . . J. KNIGHT
16	“ “ . . . THOMAS SEWALL
17	“ “ . . . PHILIP S. PHYSICK
18	“ “ . . . N. CHAPMAN
19	“ “ . . . JOSEPH LOVELL
20	“ “ . . . VALENTINE MOTT
21	“ “ . . . WILLIAM INGALLS
22	“ “ . . . CHANDLER ROBBINS JR.
23	“ “ . . . JOHN C. WARREN

A.

Boston, December 15, 1830.

SIR,

As chairman of a committee of the Massachusetts Legislature on the subject of legalizing Anatomy, I would respectfully solicit of you information on two points.

1st. Is the study of Anatomy essential to the proper understanding and safe practice of Medicine?

2d. Is the study of Anatomy now encumbered with difficulty, and is a change of the Law in relation to it necessary, and is the dissection of dead bodies essential to this study?

An early answer, by mail, to these queries will much oblige

Your obedient Servant,

JOHN. B. DAVIS.

B.

Boston, December 15, 1830.

SIR,

As chairman of a committee of the Massachusetts Legislature, on the subject of legalizing the study of Anatomy, I would respectfully solicit of your experience information on the following question :

Are the study and knowledge of Anatomy essential to the understanding and safe practice of Medicine ? And is the dissection of dead bodies essential to such study and knowledge ?

An early answer, by mail, to this query will much oblige

Your obedient servant,

JOHN B. DAVIS.

(No. 1.)

Boston, Secretary's Office, Jan. 5, 1831.

Sir,

In compliance with your request, I enclose to you a List of criminals who have suffered death, after capital convictions, in this Commonwealth, from 1800 to 1830, inclusive. The catalogue embraces the names of two individuals who, as appears by the returns of the sheriffs, committed suicide in prison, on the night before the day appointed for execution. I have prepared this list, after an examination of the public records of the Council for the period before mentioned, and believe it to be correct.

I am, sir, very respectfully,

Your obd't servant,

EDWARD D. BANGS,

Secretary of the Commonwealth.

Executions which have taken place in Massachusetts from January 1, 1800, to December 31, 1830, as far as they can be determined from the Records in the Secretary's Office.

Names.	Crimes.	When Executed.
Jason Fairbanks	For Murder	Executed Sept. 10, 1800
Ebenezer Mason	Murder	" Oct. 7, 1802
John Battes	Rape	" Nov. 8, 1804
Ephraim Wheeler	Rape	" Feb. 20, 1806
Dominick Daley	Murder	" June 5, 1806
James Halligan	Murder	" June 5, 1806
Joseph Drew	Murder	" July 21, 1808
Ebenezer Ball	Murder	" Oct. 31, 1811
Henry Pyner	Rape	" Nov. 5, 1813
Ezra Hutchinson	Rape	" Nov. 18, 1813
Jonathan Jewett, Jr.	Murder	Committed Suicide in Prison, Nov. 10, 1815
Henry Phillips	Murder	Executed March 13, 1817
Peter Johnson	Rape	" Nov. 25, 1819
Michael Powers	Murder	" May 27, 1820
Stephen M. Clark	Arson	" May 10, 1821
Michael Martin	Highway Robbery	" Dec. 20, 1821
Samuel Clisby	Robbery	" March 7, 1822
Gilbert Close	Robbery	" March 7, 1822
Samuel Green	Murder	" April 25, 1822

Horace Carter	Rape	Executed Dec. 8, 1825
John Holloran	Murder	" March 3, 1826
Samuel P. Charles	Murder	" Nov. 22, 1826
Robert Bush	Murder	Committed Suicide in Prison, Nov. 14, 1828
John Boies	Murder	Executed July 7, 1829
John F. Knapp	Murder	" Sept. 28, 1830
Joseph J. Knapp, Jr.	Murder	" Dec. 31, 1830

(No. 2.)

District Clerk's Office, Boston, Dec. 24, 1830.

SIR,

Agreeably to your request I enclose to you a statement of the Capital Executions of Criminals under sentence of the U. States Circuit Court for Massachusetts District, from the adoption of the Federal Constitution in 1789 to the present time.

I am very respectfully,

Your obd't servant,

JOHN W. DAVIS,

Clerk of Mass. District Court.

List of Criminals capitally executed, under sentence of the U. States Circuit Court for Massachusetts District, from the adoption of the Federal Constitution in 1789 to Dec. 24, 1830.

Names.	Crimes.	When Executed.
John Baptiste Collins	{ Piracy and Murder } { on the high seas }	July 30, 1794
Manuel Furtado	do.	do.
Augustus Poleski	do.	do.
Samuel Tully	Piracy on the high seas	Dec. 10, 1812
John Williams	{ Piracy and Murder } { on the high seas }	Feb. 18, 1819
John P. Rog	do.	do.
Francis Frederick	do.	do.
Nils Peterson	do.	do.
William Holmes	Murder on the high seas	June 15, 1820
Thomas Warrington	do.	do.
Edward Rosewaine	do.	do.
Perry Anthony	do.	Dec. 21, 1824

Winslow Curtis	Murder on the high seas	Feb. 1, 1827
John Duncan White	do.	Feb. 1, 1827—Committed suicide night before the day of Execution
	13 Executions,	
	1 Suicide.	
	—	
	14	

(No. 3.)

Statement from the Boston Health Office.

Died at the House of Industry, and buried in tombs belonging to that establishment, from January 1, 1830, to December 21, inclusive—

62 Adults and 26 Children.

Died and buried at expense of the City within the same time—

134 Adults and 60 Children.

S. H. HEWES,

Sup. Burial Grounds.

(No. 4.)

Staniford Street, December 15, 1830.

J. B. DAVIS, ESQ. SIR,—Yours of this inst. is now before me. If summoned to render a reason why the study of Anatomy should be legalized, I would reply, that anatomy is to the practice of medicine and surgery, what the alphabet is to language. Although certain gifted individuals may speak a language eloquently without knowing how either to read or write a single letter, still the exception proves the rule, for in this enlightened commonwealth precious few are to be found without such knowledge. There have been instances of reputation in medicine and surgery without the familiar knowledge of anatomy, still the supposed case stands so rare, that as an exception it confirms the general rule. Our commonwealth is great and powerful from the labor and skill of its population. Labor and skill both jeopardize the life and limb of the operative. Free trade and domestic manufacture in their full course of operation, expose to peril of life and limb, its several laborers. Is a nerve punctured, an artery torn, a bone broken or out of place, a surgeon skilled in the knowledge of anatomy is essential to the

safe treatment and chance of recovery. Dr. Nathan Smith, late Professor of surgery at Yale College, and previously at Dartmouth, who left to his family little else than the odor of his fair fame (and nobody doubts that the fame of his good deeds pervades every hamlet in New-England,) was once requested to reduce a dislocated hip—his first trial was unsuccessful—he then dissected the hip of a subject procured for his lectures, and with his fresh knowledge of the anatomy of the hipjoint, he returned to his patient, and readily accomplished his task. A venerable matron in this city in childhood, had the misfortune to suffer a division of the ulnar artery at the wrist—in those days anatomy was not cultivated as a liberal pursuit, it being previously to the commencement of the splendid career of the late Dr. Warren. The wound was plugged up with lint and a compress, and respectable physicians alternately watched and stanchd the bleeding by their fingers—the fair sufferer incurred extreme peril of life at the time and experienced a perishing of the arm, which has rendered it useless for life. Had Anatomy been known, the bleeding vessel had been secured, and the usefulness of the limb preserved. The study of Anatomy should be legalized, because the good of the laborer demands skill in medicine and science in surgery, and neither can be obtained without the knowledge of Anatomy, and Anatomy cannot be learned without frequent dissections. The poor mutilated sailor, the wounded soldier, the lacerated workman in the factory, the prostrate builder, in short all sufferers from accident or even disease, implore help from the presence of the scientific surgeon and skilful physician. Laws inflicting penalty indiscriminately on dissection are deaf to these cries of humanity. Were the bodies of the harlot and the vagrant, permitted by the law to be dissected, you would no longer hear of the violation of the sanctuary of the grave. The medical student might learn to tune the “harp of a thousand strings” from a familiar knowledge of its mechanism acquired from the dissection of those, who had corrupted society while living. As the law now stands the physician and surgeon are required to exercise competent skill in the treatment of disease and injury at the hazard of reputation and of fortune, and at the same time are forbidden under the penalty of fine and imprisonment to learn the first rudiments of their humane profession! The Egyptian taskmaster demanded of the Israelite in bondage his complement of bricks, but furnished no straw for their manufacture. Massachusetts speaks as hard a language to her practitioners of the Healing Art; bind up these wounds and heal these diseases, for both your reputation and your fortune are at stake on the issue, but do not dissect a human body to learn your art. Of her statute, the hard hearted oppressor takes advantage, he drives the houseless vagrant hungry from his door, and when he has perished in the street from cold and hunger, and after he shall have been interred at the expense of the town, when the aspiring son of medical inquiry, as he supposed, had *secretly* disinterred for the light of anatomical science the unfortunate wanderer, gripes all at once, when there is to be nothing out of pocket,

feels a touch of humanity for the corruptible body, and calculates on both a harvest of applause, and money for his patriotic zeal. The unfortunate tyro in physic is immured in prison, is sentenced to pay a fine to which he is unequal, and consequently expiates the offended law by protracted imprisonment to the loss of health and life. The valley of the Connecticut presents more than one instance of this unreasonable prejudice and hardened cruelty.

Dear Sir, your obedient servant,

GEORGE C. SHATTUCK.

(No. 5.)

Groton, Dec. 18, 1830.

SIR,

Yours of the 15th is duly received. In answer to your first question, "Is the study of Anatomy essential to the proper understanding and safe practice of Medicine?"

I think, Sir, a Physician may be a good practitioner without having attended much to Anatomy; but I think a knowledge of that subject would qualify him to be a much more of a philosopher, much more safe, and a much better practitioner.

Question 2nd. "Is the study of Anatomy now encumbered with difficulty, and is a change of the law in relation to it necessary, and is the dissection of dead bodies essential to this study?"

I am sensible, Sir, that the subject must be a very delicate and difficult one for legislation. But if the members of our Legislature could be made sensible of the absolute necessity for every student in the Healing Art, to have a thorough knowledge of the structure of the human frame, in order to be more safe and sure in his attempts to assist his unfortunate fellow creatures, and the utter impossibility to arrive at this knowledge without attending to the dissection of dead bodies, I think they would do every thing in their power to remove the obstacles now in the way of acquiring such a knowledge. I have, sir, been in the practice of Medicine, almost forty years. I am now about retiring from the profession: Have no self-interest but for the good of society, and from a thorough conviction in my mind, I must say yes, to both your questions.

I am, Sir, with respect and esteem,

Your friend and well wisher,

AMOS BANCROFT.

(No. 6.)

Roxbury, Dec. 18, 1830.

SIR,

In answer to the points on which you request my opinion, viz. whether the study of Anatomy, be essential to the proper understanding and safe practice of Medicine, whether it is now encumbered with difficulty, and a change of the law necessary ; and whether the dissection of dead bodies be essential to this study, I would respectfully reply, that no remedy for the removal of diseases, whether medical or surgical, can be safely applied without a thorough knowledge of the anatomical structure of the different organs of the body, all of which, must completely perform their functions, to insure good health. I also consider, that an attendance upon the dissection of dead bodies, is the only sure means by which a competent understanding of the action of those organs can be obtained. And it is my opinion, that a change of the law so far becomes necessary, as to enable our young men to obtain the advantages of dissection without a violation of it.

Yours, with respect,

JOHN BARTLETT.

(No. 7.)

Milton, Dec. 19, 1830.

SIR,

Having received your request by letter, (of date 15th inst.) as Chairman of the Committee of the Massachusetts Legislature, on the subject of legalizing Anatomy—in compliance with your request, I do very respectfully respond to the queries on those points, with all the candour and sincerity that one of the medical profession ought to express, for the welfare of the whole community.

1st. The study of Anatomy, and the ocular demonstration of the same, by exhibiting the structure of the human body by anatomical preceptors, is so absolutely necessary and indispensable to the medical student, that no one can be scientifically, or even duly qualified for a safe practitioner, without that advantage ; and particularly for the safe practice of surgery, for if a surgical operator is not thoroughly acquainted with the structure of the human body, he must be altogether in the dark, as to where he plunges the knife, especially in important and internal operations, and be exposing the patient to be awfully maimed for life, or to sudden death. And as there is no way for the student of medicine or surgery, to obtain the

necessary qualifications, but only by the advantage of dissection of dead human bodies.

2d. The study of Anatomy, which is the only basis on which the whole superstructure of the medical and surgical art rests, is so encumbered or impeded at present, for the want of some legal provision, for the benefit of such an important purpose, as to cause much embarrassment to the medical schools, in preventing their having the necessary requisitions for the advantage of their students; and therefore it has become ardently desirable by the medical profession in general in this State, to solicit the patronage of a wise Legislature, for their aid and assistance in devising some legal provision adequate to so laudable a design as the prevention and cure of the diseases and maladies of the human system.

I am, Sir, respectfully,

Your obedient servant,

AMOS HOLBROOK.

(No. 8.)

Brewster, Dec. 20th, 1830.

SIR,

This will serve to acknowledge the receipt of your favor of the 15th inst. by yesterday's mail.

In reply to your inquiries, permit me to observe, that twenty-five years experience in the daily practice of medicine and surgery, has amply demonstrated to my mind, that a thorough and minute knowledge of Anatomy is essentially and indispensably necessary in order to a judicious investigation of disease, and a correct treatment of the same, and that such knowledge cannot be obtained in any other manner than by *actual* dissection.

I refer you to the "*Address to the Community*" of the Committee of the Massachusetts Medical Society of Dec. 1829—which contains a fair, candid, and honest exposition of the whole subject and which meets with the most cordial approbation of—Sir,

Your most obedient and very humble Servant,

JOSEPH SAMPSON.

(No. 9.)

Springfield, Dec. 21, 1830.

SIR,

I received yours of the 15th instant soliciting me to give you information on two points relative to the legalizing Anatomy, viz. 1st. Is the study of Anatomy essential to the proper understanding and safe practice of Medicine? 2d. Is the study of Anatomy now encumbered with difficulty and is a change of the law in relation to it necessary, and is the dissection of dead bodies essential to this study?

I can cordially answer these queries in the affirmative. I consider that a knowledge of Anatomy is the ground work of medical education and that, no one can be a safe practitioner without it, and that the knowledge of Anatomy cannot be obtained any other way, than by actual dissection of dead bodies, and that the dissection of dead bodies is indispensably necessary. Notwithstanding the great importance of a knowledge of Anatomy, it is extremely difficult to obtain subjects for dissection; it is not only disgraceful in public opinion, but it is liable to heavy fines and imprisonment; therefore it appears to be necessary, to make some change in the present state of our laws in relation to it, which I think can be done without injury to the dead or the living. Yours, respectfully,

JOSHUA FROST.

(No. 10.)

Pittsfield, Dec. 22, 1830.

DEAR SIR,

In reply to your favor, I have the honor to state. 1st. The study of anatomy lies at the foundation of all true medical science, and all scientific practice. The truth of this declaration is so obvious, that any argument, to support it, seems superfluous—all correct physiology is based on anatomy, and a knowledge of physiology is indispensable to a knowledge of pathology—any other mode of teaching medical science and its practical use, is unscientific and empirical. 2d. It is only by actual dissection that the study of anatomy can be prosecuted with any tolerable success; the necessary accuracy and familiarity of knowledge with the various parts of the human sys-

tem is only attainable by actual dissection. To the dissection of dead bodies, surgery is principally indebted for its present high state of improvement—without a minute knowledge of anatomy, the slightest surgical operation would be hazardous to the patient—without the opportunity of dissection a student would be unable to pass such an examination, in medicine, as the laws of this State require in order to authorize him to enter on the duties of the profession.

Notwithstanding the known difficulties attending the supply of the dissecting table, often even at the hazard of life, so essential is the dissection of dead bodies considered by the faculty, that no student, thinks of prosecuting the study of medicine without enjoying those advantages, which actual dissection afford. The facilities for dissection, which the government of France have given, have made Paris the emporium of medical science—and in consequence of their greater privileges, more improvements have been made in the French schools, than in those of any other country. I know of no subject of deeper interest to the State of Massachusetts, than the one on which, I am happy to learn, you are deputed by the Legislature to report—not only the faculty but the public are most deeply concerned;—legalize the study of anatomy, by affording facilities for dissection—and you exalt the reputation of the State, advance its clearest interests and confer the richest blessings on the community. Yours, &c.

H. H. CHILDS.

(No. 11.)

Mendon, Dec. 25, 1830.

Sir,

Yours of the 15th inst. soliciting information on the subject of legalizing Anatomy was duly received, and after maturely considering the advantages and disadvantages, which would result to the community, from a change of the present existing law as it regards that subject, I feel it my duty to make the following reply to your inquiries.

1st. In my opinion the study of Anatomy, is essential to the proper understanding and safe practice of medicine.

2nd. I view the study of Anatomy to be now encumbered with difficulty, and a change of the law in relation to it is necessary, and that the dissection of dead bodies is essential to this study.

I have reason to believe, that the greater part of those who received their medical education in this Commonwealth, at the time I commenced the study, viz. about the year 1784, have often had cause to regret that at

that time, very few had opportunity of attending any medical school, or receiving the benefit of lectures on the science of anatomy and physiology. The medical school connected with Harvard University was then in its infancy: and indeed, in the section of the country where I then resided, I presume it was not generally known, that there was such an Institution in N. England. The knowledge of Anatomy which we derive from the best written treatises on the subject, illustrated with plates, must always remain imperfect. And although it may be doubted whether we shall ever be able to acquire a perfect knowledge of our complicated system, from the dissection of dead bodies and the ablest demonstrations, yet we are fully persuaded, that the knowledge we obtain from attending such dissections, contributes more to our understanding the structure, connection and sympathy of the various parts of this machine, which is "fearfully and wonderfully made," than we can gain from any other source: and the impressions made on our senses at the time, will be of long duration, and I think can never be obliterated.

How could the immortal Harvey, who made the important discovery of the circulation of the blood, which had been sought for in vain by the ancients, have accomplished a work of such magnitude, and of such universal benefit to the civilized world, without the advantages of dissections of, not only dead but of living animals?

Nor does the Anatomist, who has the comfort and preservation of the health of his fellow mortals in view, rest satisfied with the discoveries that have hitherto been made,—from what he has seen accomplished by the industry and perseverance of others, he is stimulated to pursue his researches and inquiries, in order to perfect a knowledge of that science, in which we all feel so deeply interested.

I most sincerely hope sir, that your influence will be exerted in enacting a law, that shall give further facility to anatomical investigations.

With much respect, I am Sir,

Your most humble servant,

DANIEL THURBER.

(No. 12.)

Salem, Dec. 28, 1830.

SIR,

My having been indisposed lately by disease, must be my apology for this late reply to your favor of the 15th inst.

You have requested my opinion on the following points; 1st. Is the study of anatomy essential to the proper understanding and safe practice of medicine.

2d. Is the study of anatomy now encumbered with difficulty, and is a change of the law in relation to it necessary, and is the dissection of dead bodies essential to this study?

1st. A general knowledge of anatomy is necessary to the physician to enable him to comprehend what has been written on the subject of diseases, and consequently to enable him to practice with safety to his patients. But to the surgeon, a minute knowledge of anatomy is indispensable to him, and the safety of his patients. Now this is only attainable by dissections of dead bodies: and as in the country both professions are usually united in the same person, a like qualification becomes necessary to both. As a minute knowledge of anatomy is unattainable but by the dissection of dead bodies, some provision I think should be made by the Laws for the attainment of this object. And this would have the good effect of preventing the violation of the graves of the dead, which is so revolting to the friends and relations of the dead; as well as serve to do away the temptation to murder, which has disgraced some of the Capitals of Europe.

I am not sufficiently acquainted with the laws relating to the above subject, to say how far they tend to discourage anatomical studies, or what modification of them would be proper. I have no doubt, but that the interest of society will be promoted, by all the means that shall facilitate the acquisition of medical and anatomical science.

I am, sir, with respect,

Your obedient servant,

B. LYNDE OLIVER.

Salem, Dec. 28th, 1830.

SIR,

I have the honor to acknowledge the receipt of a communication from you as the chairman of the committee of the Legislature, on the subject of Anatomy, and to state in reply :

1. It is the unanimous opinion of all medical practitioners, and is not contradicted by any well informed person out of the profession, that a knowledge of anatomy is the indispensable foundation of a medical and surgical education.

2. And it is equally agreed that there can be no effectual way of acquiring a knowledge of anatomy but by inspecting, many times over, the parts of the human body as they are exhibited by dissection. Plates and models are wholly inadequate to convey an idea of the relative sizes, proportions, distances, hardness, softness, colour, and other qualities of the parts of the body essential to be understood by the anatomist. The medical society of this State, in their address to the community on this subject, have supported these opinions by facts and arguments, which might be, if necessary, still farther extended. Cases are there given, of lives lost for want of a competent knowledge of anatomy in medical practitioners. The following cases are inserted in the American Journal of Medical Science for May, 1830, by Dr. Horner, of Philadelphia, a distinguished surgeon and anatomist. "During the brilliant campaign of our army in 1814, on the Niagara frontier, many cases of severe wounds required surgical operations. A surgeon occupying a distinguished station through his commission, but certainly not through any professional qualification, was a chief operator. We saw this person, in an amputation of the thigh, fail to cut through the great sciatic nerve. After the bone was sawed through, the limb still hung on by this nerve. Ignorant of its nature, he made a plunge at it with his saw! The screams of the poor soldier attested the concentrated agony of a thousand operations, until the operator was implored by an assistant to take a knife, and divide the mangled nerve." A captive officer of the enemy likewise, fell a victim to the want of scientific skill of the same ignorant individual, who was unable to perform the operation of tying the main artery of the arm, which a person tolerably acquainted with Anatomy can readily do, and suffered the wounded man to die from hemorrhage and inflammation. Such instances might be indefinitely multiplied, and ignorance of Anatomy leads to as fatal results in medical as in surgical practice.

3. The laws are now, certainly, prohibitory of dissection, since they punish the taking of a dead body, *under any circumstances*, with little less severity than felony. Let me ask you, sir, if you had a son about to commence the study of physic, would you not be startled to know he could not acquire the very elements of his profession in this Commonwealth, without violating the laws, and exposing himself to heavy fine and long imprisonment? The

operation of the present laws, likewise, consigns the actual procurement of bodies to desperate and unprincipled men, who alone are willing to take the risks attending the occupation, and who are thus preparing themselves to become the terror of peaceable and virtuous citizens. It must of necessity be the case, that every school of anatomy in the country, must depend on such men for their supply of subjects. In other countries these men have committed murders which chill the blood to mention ;—why may they not do the same in this ? In the present order of things, private dissection by individual practitioners is out of the question. No respectable man will risk an exposure.

4. The remedy of the evil has always appeared to me to be a direct, and manful appeal to the legislature to take the matter up as their business and that of their constituents, considering the medical profession no farther interested than other citizens. The legislature has established medical schools, prescribed the education of medical practitioners, and made practical anatomy a part of that education, and it becomes imperative upon them not to prohibit the only means by which their own laws can be complied with. I believe the public are prepared for a law to legalize Anatomy ; and if the provisions of it are only permissive and not mandatory, and the whole power of giving up, or of refusing to give up, any subject, be left in the hands of the municipal authorities, the most scrupulous must be satisfied. For some papers relative to petitioning and to enactments on this subject, I beg leave to refer you to Prof. J. C. Warren, the Chairman of the Committee of the Massachusetts Medical Society, on Anatomy.

I have the honor to be,

Your most ob't servant,

A. L. PEIRSON.

(No. 14.)

New-York, Dec. 19, 1830.

SIR,

Your letter of the 15th instant, is now before me. In it you ask, in your capacity of Chairman to a Committee of the Massachusetts Legislature, my opinion on the study and knowledge of anatomy, more especially whether they are essential to the understanding and safe practice of medicine.

On these points it may be observed, that a knowledge of the structure of the stomach is not essential to the operation of an emetic : nor of the rest of the alimentary canal to the efficacy of a cathartic. Venesection was performed centuries before the circulation of the blood was known. And infants and suckling animals of all sorts, take milk from the teat without any acquaintance with the vacuum or the gullet.

Still the same accidents that befall man in the field of labour and the field of battle, ought to lead him to learn his organization and economy. Hemorrhages, abscesses and ulcers require patient and minute investigation. But when fractures, dislocations, wounds, burns, scalds, and other accidents, are taken into consideration, the importance of studying the human frame becomes more impressively evident. As also do the operations of surgery and the occurrences of midwifery.

I have, for these and other considerations, no doubt of the fundamental importance of anatomical knowledge to a physician and surgeon.

You next ask whether the dissection of dead bodies is essential to the study and knowledge? Inasmuch as correct, information cannot be procured without such exercise, I have no hesitation in observing on it, that it ought to be discreetly and prudently done, for the purpose of making able professional men.

I have the honor to be—respectfully, yours,

SAMUEL L. MITCHILL.

(No. 15.)

New-Haven, Dec. 20, 1830.

SIR,

I received your letter of the 15th inst. a few days since, requesting an answer to the following questions. “Are the study and knowledge of anatomy, essential to the understanding and safe practice of medicine? Is not the dissection of the dead body essential to this study and knowledge?” A strong and decided affirmative answer to both these questions, is the only one, which would probably be given by any intelligent member of the medical profession. This answer would be seen by every one, whether of the profession or not, to be correct, if a general direction were given to the inquiries, instead of being turned to medicine and anatomy; concerning which subjects, there seems to be in the minds of many a suspicion of mystery, and of something not to be judged of by the ordinary rules of common sense. That a man should be accurately acquainted with the structure, organization and functions of those bodies with which he is conversant in the ordinary business of life, and that this acquaintance can be obtained best, if not solely, by inspecting them, are principles so obvious as scarcely to be susceptible of proof. At the same time, I am aware that notions contradictory to the opinion above expressed in relation to the necessity of the study of anatomy to the physician, are extensively prevalent, connected with, if not arising out of, the strong feelings which prevail concerning the dissection

of the human body. This subject has been so thoroughly examined in all its bearings, within a few years past, and the result of these examinations so ably brought forward in publications which are doubtless in the hands of the Committee of which you are a member, as to render any detailed remarks from me a trespass upon your time. There is one topic however, which I will take the liberty to suggest, as I have not seen it mentioned in any of the publications above alluded to, which affords a strong reason for the cultivation of anatomy by dissection on the part of the students of medicine of the present day.

Anatomical investigations concerning the causes, seat and nature of diseases, have been assiduously and successfully followed for many years past. The result of these investigations has thrown much light upon the nature and mode of treatment of important diseases. The facts which have been discovered, are incorporated with the medical learning of the day, and upon them much of the reasoning upon medical subjects is founded. Without a knowledge of anatomy, the student of medicine will be unable, either to understand or duly appreciate, either the facts or the reasoning founded upon them, which he will meet with, in every modern medical book which is put into his hands. This subject might be enlarged upon and its importance confirmed, by a reference to particulars. It will however be sufficient, I presume, to have suggested it for your consideration.

Trusting that the Committee of which you are a member will devise some method, and your legislature, in their wisdom adopt it, which will free physicians from the embarrassments under which they now labor, in having placed before them the choice, either to remain ignorant of what they deem essential to the safe and honorable practice of their profession, or in obtaining it, to violate the law of the land, I cannot but express the opinion, that in so doing, a greater favor will be conferred upon community, so far as the advancement of medical science is important to them, than can otherwise be bestowed.

Very Respectfully,

Your obedient Servant,

J. KNIGHT,

Professor of Anatomy in Yale College.

(No. 16.)

Washington City, D. C. December 20, 1830.

SIR,

In reply to your interrogatories—"Are the study and knowledge of Anatomy essential to the understanding and safe practice of medicine, and is not the dissection of dead bodies essential to this study and knowledge?"

I answer first that the study and knowledge of Anatomy are not only essential, but indispensable to the safe practice of medicine; and any one who attempts the Healing Art without this knowledge, can have no correct idea of the seat and nature of disease and the operation of remedies, and must daily see his patients, falling victims to his ignorance.

Second, I answer that there is no other source from which knowledge of Anatomy can be acquired, but that of dissecting dead bodies.

I can add from experience and observation, that just in proportion to the acquisition of Anatomical knowledge and consequently in proportion to the facilities of acquiring that knowledge by dissection, will be the skill and respectability of the medical profession. The truth of this position is established by the experience of every age, and every country.

Very respectfully yours,

THOMAS SEWALL.

(No. 17.)

Philadelphia, Dec. 20, 1830.

SIR,

I will with pleasure answer the two questions, you have done me the honor to propose in your letter dated the 16th instant.

Question 1st. "Are the study and knowledge of Anatomy essential to the understanding and safe practice of medicine?"

Answer—An accurate knowledge of Anatomy is in my opinion essential to the understanding and safe practice of medicine.

Question 2d. "Is the dissection of dead bodies essential to such study and knowledge?"

Answer—The dissection of dead human bodies is essential to such study and knowledge.

With great respect, I am, Sir,

Your obedient servant,

PHILIP S. PHYSICK.

(No. 18.)

University of Pennsylvania, Dec. 21.

SIR,

No medical man I presume, can be found, who would deny, that the study and knowledge of anatomy are essential for the understanding and safe practice of medicine, or that the dissection of dead bodies, is essential to such study and knowledge. The whole medical profession, without a solitary exception, I believe, are unanimous on this point. As impossible were it, to become acquainted with the details of a complicated piece of machinery by any written description, or system of oral instruction, as to learn by either or both of these modes, the intimate structure of the animal frame. Demonstration, minute and repeated, is required in each case, to the comprehension of the object; though far more so, in relation to the latter, from the infinitely greater intricacy of the subject. The *sine qua non*, to the surgeon, a thorough familiarity with anatomy, cannot be dispensed with, in any province of technical medicine. Deficient in this respect, medicine, instead of a definite and useful science, degenerates into mere quackery, dark, confused, and destructive. As evidence of the importance we attach to anatomy in this school, it is enjoined on the candidate for graduation, to attend two complete courses of lectures on it, and to actually dissect and diligently, during the same period. Let any one go into practice without a competent knowledge of the human structure, and he will very soon be traced along his course by the dreadful mortality which he would inflict.

I have the honor to be,

Sir, most respectfully,

N. CHAPMAN.

Surgeon General's Office, Dec. 22, 1830.

SIR,

I have the honor to acknowledge the receipt of your communication of the 15th inst. The subject referred to has been so amply and ably discussed of late, both in this country and in England, that I am not aware of any thing that can be added to the statements and arguments already before the public. The history of medicine in every age and country so clearly proves the affirmative of both the propositions submitted, that individual opinion can at this period scarcely affect the question. From the days of the Father of Medicine, who commenced the study of Anatomy on the scattered bones of a grave yard, to the present time, when all the professional talent of England cannot compete with the anatomical facilities of the Continent, and the desertion of her schools from *this cause alone*, has been a subject of serious Parliamentary debate,—an accurate and minute knowledge of Anatomy has not only laid the foundation of individual professional eminence, but the improvement and progress of the profession itself has been in proportion to the assiduity, with which this elementary branch of it has been prosecuted. The petitions of both surgeons and physicians to Parliament, the report of their committee, and the bill which passed one branch of that body, neither make, nor admit of, any question on this point; the only difficulty of legalizing dissection was found in the details of the provision intended to be made. Indeed, the simple fact that medical students are compelled to resort to those schools which afford the necessary facilities for dissection, at whatever inconvenience, labour and expense, that they may have even a chance for competition in their profession, is conclusive proof that this knowledge is *essential* to qualify them for it. There is however a special cause for the attention which this subject has recently excited, to which I beg leave to allude, as it must soon compel every medical student either to become a proficient in practical anatomy, or to abandon all hope of even mediocrity in his profession. Formerly this study was considered by many as *essential* to surgeons alone; for in the absence of correct anatomical and physiological knowledge, pathology or the theory of physic was made to consist in certain fanciful dogmas of some eminent teacher of the day; so that the student had only to make himself master of the fabulous text book of his time, and to procure a few acids and alkalis, tonics and antispasmodics, according to the prevailing theory, and he was at once *au fait* in his profession. But of late years the theories of the physicians have been made in a great measure to yield to the facts of the anatomist and physiologist, who have discovered that diseases have a local habitation as well as a name; so that unless the student now have a competent and practical knowledge of the various tissues and organs; their nature, position and connections, the productions of the day will be as sealed books to him; and in a few years his medical library, for all useful purposes,

may as well be in Arabic as in his vernacular tongue. It is this radical, important and progressive improvement in Pathology, which is believed to be the true cause of the difficulties in the English Schools; it having rendered the study of Anatomy as essential to the physician as the surgeon, and young practitioners finding that without it they can have no chance of advancement in their profession.

There is one point strongly urged in England, which cannot fail to have its full weight with the constituted authorities of this country, as well as with the public. It is this:—that the young practitioner must and will acquire what degree of knowledge he may, at the expense of the living, if he be not well grounded in his profession by the dissection of the dead. The scruples of friends to *post mortem* examinations are for the most part overcome by the consideration that “others may be benefitted by the information thus obtained.” How sad the reflection that the dissecting room *might*, perhaps certainly *would* have given the physician the identical information, now obtained at the expense of his patient’s life; and yet that such things do occur cannot admit of a question. In Europe an extensive field for this barbarous mode of instruction is furnished by a mass of vagrant paupers, who have scarce a social tie to life;—but in this country the young practitioner commences in the larger cities generally, in a sparse population always,—among fathers, mothers, sisters and brothers, who while they permit their prejudices to deprive the student of the necessary means of instruction, must be content to sacrifice their dearest connections on the altar of ignorance and obstinacy.

Personal observation and experience in the public service have rendered this a subject of deep interest. In private life the young physician may ordinarily obtain advice in the important cases that fall in his way, and in a scattered practice the effect of his deficiencies may pass unnoticed; but a public commission, especially in active service, throws him at once on his own resources, perhaps without even the aid of a reference to his books; and places under his sole control the crowded wards of a Hospital, where the result of his practice must at once be seen and felt. Under these circumstances, I have repeatedly witnessed the inestimable value of a medical education, commenced, continued and ended in the dissecting room. At one period I should have preferred the assistance and advice of a recent pupil of a late distinguished lecturer on Anatomy, to that of most, perhaps of all, those with whom I was at that time associated; and his success in private life has shown that the confidence would not have been misplaced; while numbers who entered the service “for improvement in practice,” left it but little, if any, wiser for advantages, which a defective education rendered it impossible for them to appreciate or improve.

Very Respectfully

Your ob’t serv’t,

JOS. LOVELL, M. D.

Surgeon General U. S. A.

New-York, Dec. 25, 1830.

SIR,

It gives me great pleasure to reply to your letter of the 15th inst., with an ardent hope that your Legislature will set a noble example to the other States, to facilitate the acquisition of sound anatomical knowledge, the only sure foundation of all that is truly valuable in Medicine, and without which, Surgery is truly murderous.

I apprehend it is not your wish to receive a long and detailed essay in answer to the two questions you propose.

1st, The study and knowledge of Anatomy is indispensably necessary to the practice of Medicine safely.

2d. And this knowledge cannot possibly be obtained in any other way, than by the frequent examination and dissection of dead bodies.

Yours very respectfully,

VALENTINE MOTT.

DEAR SIR,

In reply to your note in relation to the subject of legalizing Anatomy, permit me respectfully to state, it is my decided opinion, that "the study of Anatomy is essential to the proper understanding and safe practice of medicine."

The living body is composed of various apparatus, organs and tissues, whose perfect action is necessary to constitute health; but if, from any cause, the regular performance of their functions be disturbed, disease ensues. Every deviation from health is indicated by a train of symptoms, which without an intimate acquaintance with Anatomy cannot be understood nor satisfactorily explained.

This position may be briefly illustrated by adverting to the seat of a few diseases of the apparatus, with which respiration is furnished. The parts that contribute, and indeed are essential, to this important function, are the lungs; the bones of the chest; the respiratory muscles and the nerves with which they are supplied with sensorial power. Pain in the side and difficulty of breathing, which are complaints of frequent occurrence, and often require medical aid, may arise from a morbid affection of the intercostal nerves, the intercostal muscles, the ribs, the pleura or the substance of the lungs, producing tic douloureux, rheumatism, necrosis, pleurisy or lung fever.

Though these diseases in the course of their development are accompani-

ed with pain in the side and difficulty of respiration, owing to the diversity in the organization of the parts on which each disease severally depends, the same remedy, which may procure relief in one case, may in another prove injurious. For instance, blood-letting, the usual remedy resorted to with the view of mitigating the severity of these symptoms, when judiciously employed, is attended with decided advantage in pleurisy and necrosis; but in the lung fever and rheumatism, its utility is exceedingly doubtful, and in tic douloureux it usually affords little or no benefit and sometimes it aggravates the pain and difficulty of breathing to an alarming degree. Hence the "necessity of acquiring the faculty of accurately discriminating diseases, whose prominent and urgent symptoms are nearly allied." For this purpose frequent dissections are indispensable; without the actual inspection of the constituent parts of the body, the seat and nature of diseases cannot be clearly discerned nor distinguished.

Anatomical drawings, models in wax and plaster, injected preparations, or other imperfect auxiliaries may be substituted, but upon such devices no reliance ought to be placed; as they too often confuse the student, and make false impressions of the things they are designed to represent. Even the most faithful and lucid descriptions, found in works on Anatomy, are incapable of affording a clear and just idea of the diversified organs of the human frame. Books and other auxiliaries may, indeed, greatly facilitate the study of Anatomy; and no means of information should be neglected, that may shed light on a subject so intricate and complex.

The science of carpentry may be described in books with mathematical precision; but it would be wholly incompetent, in this way, to convey to the understanding the practical knowledge requisite to repair an edifice. To become a proficient in practical carpentry, a man must not only make himself acquainted with the different materials of the building, but serve a long apprenticeship in taking apart and putting together the various pieces and studying their connections. If much time and study be necessarily consumed in becoming practically conversant with this branch of mechanics, how much more diligence and labor ought the student to devote in ascertaining the structure, form, and situation of the constituent parts of a fabric, whose exquisite and complicated mechanism is not surpassed in nature or art, before he can become qualified to practise medicine with reputation and success?

Your next question involves three propositions. The difficulty attending the study of anatomy, the necessity of a change of the law in relation to it; and if the dissection of dead bodies be essential to a correct understanding of this branch of medical science.

With regard to the first proposition, the study of Anatomy is encumbered with great difficulty, arising from the laws virtually prohibiting dissections; but the committee may be assured no legal obstacle, however great, can be opposed to the disinterment of bodies, but what enterprise and a thirst of

knowledge will overcome. On this subject, my experience has been by no means inconsiderable ; and it is well known, the ingenuity of the plans for procuring subjects, the boldness with which they are executed, and the recklessness of consequences are such, as to appal the discreet, and cause in those who are concerned for the character and welfare of the student, the honor of the profession, and the tranquillity of the community, extreme anxiety. To every reflecting mind, it must be a subject of deep regret, that those who pursue the study of Anatomy, as the only sure means of rising to eminence, must not only render themselves liable to public opinion, but subject themselves to the penalty of that part of the criminal code "made and provided" against the exhumation of the dead, or remain ignorant of its very rudiments.

2d. The present law has proved to be an ineffectual barrier to the accomplishment of what the student justly considers to be indispensable to the acquisition of a competent knowledge of his profession, and what, he fancies, he may be justified in claiming as a right. The violation of a law, so far as it respects example, has a demoralizing influence. A law, therefore, making that a crime, the commission of which does not infringe the principles of morality or contravene the soundest maxims of jurisprudence, is in itself defective, and its tendency pernicious. Such "a change" therefore, "in the law is required," as may not be incompatible with rectitude and the good of society, and, at the same time, grant to the faculty every necessary facility of becoming masters of medical science.

3d. That no one can arrive at the summit of his profession without the frequent "dissection of dead bodies" may be satisfactorily inferred from the biography of John Hunter, who, in the latter part of the last century, shone as a practitioner of medicine, with unrivalled lustre. This illustrious character, by his ardent devotion to the study of anatomy, and by perseverance and indefatigable industry in the cultivation of this science, not only rose to the highest eminence, but by profound physiological and pathological researches, the result of his anatomical labors, has paved the way for those brilliant and successful advances in medicine, that at the present time give to the practice of physic a precision and stability, unknown to former periods. Nothing, perhaps, can place the importance of the study of Anatomy in a stronger light than the fact, that this accomplished practitioner owed his celebrity and usefulness almost exclusively to his familiar acquaintance with this department of medical science, obtained by frequent and numerous dissections of dead bodies.

With great respect,
WILLIAM INGALLS.

(No. 22.)

Boston, January 1831.

DEAR SIR,

I owe you an apology for delaying so long, a reply to your polite note, in which you request of me some examples, in which the dissection of the human body is indispensable in the practice of our profession. This delay has been occasioned by the conviction, that, from other sources, you would derive more signal examples of this necessity, than have fallen under my own observation. I do not mean, by this remark, that a minute knowledge of anatomy is, in the least degree, less important in the *practice of Physic*, than it is in that of *Surgery*, (which I do not profess;) but simply that its importance cannot be so generally seen and appreciated in the treatment of internal diseases, as it is where life evidently and immediately depends on the skilful use of the cautery or knife. Still, there is no fact better established, or more frequently illustrated to the scientific observer, than that, in the former department of the healing art, as in the latter, not a step can be taken without peril to the patient, until the practitioner has made himself most intimately acquainted with the minute structure of the machine he undertakes to repair.

There is one example, however, which I will attempt to offer you, in illustration of the advantage of human dissection to the medical practitioner; and this I have selected because it can be easily understood, and because, being the fruit of very recent investigations, it shows that anatomy is still giving success to our labors, and that we have yet much to hope from its future cultivation.

The example I allude to, is found in the history of a class of diseases, termed *neuralgic*,—diseases which consist in a disordered condition of some of the nerves, with which every portion of the body is liberally supplied, and which are the conductors and receptacles of all sensation.

Affections of the nerves are usually attended by severe pain, and have always resisted with peculiar obstinacy, the most active means which have been adopted for their relief. As a familiar example, I will mention the common *tic-douloureux*, which is a specimen of both the severity and obstinacy of diseases of this class.

Within a few months only, Physicians have been led to a new and philosophical method of treating complaints of this description; a method which is attended, in a great majority of cases, by immediate and permanent relief, and which could not, in the nature of things, have been found

out, but by the patient dissections of the anatomist. The nervous cords of the parts about the head, the chest, the abdomen, and the upper and lower extremities, have been traced to the spinal marrow, from which they come out like branches from the trunk of a tree ; and the neuralgic affections of all these parts of the body are now found to yield to remedies applied to the back, near the *origin* of the nerves of the part affected, after every species of application to the direct seat of pain had proved wholly unavailing.

It must be perceived by every one who looks at this subject, that without the dissections of the anatomist, no philosophy could have taught us to apply a blister to the back for the relief of a tormenting pain in the knee, or to the neck for a like affection of the scalp, the elbow or the wrist. But for these dissections, Physicians might have gone on in such cases, making repeated and severe, but ineffectual applications to the immediate seat of pain, till the number of instances, already great, might have become fearfully increased, in which withered and useless limbs, broken down spirits, and worn out constitutions, have resulted from the long continuance of such painful maladies. These dissections must be *minute* ; for the nervous filaments which supply different parts, are given off from different portions of the spinal marrow, and the remedy, to be successful, should be applied over the immediate origin of the particular nerves which go to the part, in which pain is experienced.

The nerves, supplying the most important internal organs, have also been traced to their origin in certain large masses of nervous matter, and thus has dissection also led to an equally enlightened method of treating some of the most painful and distressing affections of these organs.

I hope, my dear sir, that I have made myself understood ; but it is no easy thing to present these subjects to those out of the profession, with any approach to their full and proper force. Cases are multiplying daily, in confirmation of the facts above stated, and they seem to me to illustrate in a clear light, the reasonableness of the opinion, that we should be allowed to pursue that species of investigation which is the true basis of all we have ever done for the relief of physical sufferings, and to which we look for direction in all our attempts to extend the usefulness of the medical profession.

Very respectfully and truly,

Your obedient friend and servant,

CHANDLER ROBBINS, JR.

(No. 23.)

Boston, Jan. 1, 1831.

DEAR SIR,

The questions on which you have done me the honor to consult me, Whether anatomy is necessary to the knowledge of medicine and surgery, and whether the existing laws of our Commonwealth impede the study of this science, are of very great importance to the public, and I shall be very glad to contribute every information in my power to dispel the obscurity and mystery which have hitherto hung over them. We live in a time when prejudice and superstition must yield to the spirit of the age. Slowly and reluctantly they may drag their ill-defined forms from the light, but it is impossible they can long withstand the scrutinizing eye of free and resolute inquiry.

There seems to be one question preliminary in its nature to those above stated, viz. Whether the sciences of surgery and medicine are useful and necessary to the public good. Although such a question may seem strange, yet it is really more susceptible of dispute than either of the others. It has been asserted on some high and solemn occasions, that empirics often succeed in effecting cures where the best instructed physicians have failed, and hence it has been hastily inferred that all the study and learning, to which the medical profession are compelled, is an unnecessary labor and a waste of time. On examining the grounds of such opinions they will be found to rest on a few insulated cases, that form exceptions to the general course and order of things. One, who never shot an arrow, might accidentally have struck the apple from the head of the son of William Tell, but the chances in such a case would be nine to one against such an occurrence. So it is in medicine and surgery. An ignorant man may sometimes be successful, and when this happens, it very naturally excites surprise, and leads the credulous and superstitious to believe there is something miraculous in such cases. The common sense of the public is not so easily duped, and hence society, ever since it was constituted, has demanded great knowledge in those to whom their lives are to be confided. Thus, from the earliest ages physicians have been expected to be the cultivators of the sciences, and to be able to employ all that is yielded by the earth, the waters and the atmosphere for the preservation of health and the cure of disease. Hence has

it followed, that to the medical profession we owe the improvement of many of the arts and sciences most serviceable to mankind. Chemistry, Botany, Geology and Natural History, so fertile in supplying the wants and administering to the comforts of man, have received their greatest improvements from the cultivators of the healing art. Besides these considerations there is a well known fact, which appears to settle the question of the utility of the medical profession in public opinion. Whenever a new settlement has been formed in our country, as soon as the first wants are provided for, the inhabitants of the new village begin to look round for the aid of a physician, and do not consider themselves secure till they have drawn into their society some regularly educated practitioner, who they are particularly desirous should be conversant with the structure of the human body and with surgical operations.

The necessity of the medical profession being admitted, the importance of anatomy must follow as a consequence. A knowledge of anatomy is the foundation of the healing art. It is a knowledge of the material, on which the physician is to operate; and without knowing what he is to operate on, how can he possibly know how to operate? There is a mode of practising medicine simply on experience without principles and without reasoning. Such is the practice of our Indians and of savage nations in general, and it may sometimes be successful, but is quite as likely to kill as to cure. This is not the kind of practice, to which the inhabitants of civilized and enlightened countries are disposed to give their confidence. Before they trust the lives of their families to professors of the medical art, they wish to be satisfied that they are well stored with general principles, suited to the endless variety of forms in which disease presents itself, principally derived from a knowledge of the structure and functions of the human body, and of the modes in which this structure and these functions may be influenced by disease. Although there may sometimes be a successful practice of medicine in an empirical way, it is not so with operative surgery. The man who ventures under the sanction of a license, to plunge a cutting instrument into the living body, without knowing the precise organization which he is thus mutilating, is no better than a privileged assassin. When there are a thousand arteries and veins and nerves, the touch of which might be fatal; to blindly and ignorantly sport with a deadly weapon, shews either want of principle or a species of insanity. Would a farmer set out to plant or to sow, without knowing the laws regulating the growth of the seeds he used, and the times and seasons necessary to their vegetation? Would an architect be employed to repair or to build a house, who had never seen the frame and the materials of which such a fabric is composed? Would any one be so mad as to commit a concern involving the whole of his property to a lawyer, who knew nothing of law but what he had acquired from seeing criminals go into court and out of it.

Yet such instances of credulity find their parallel in the minds of those who maintain that a surgeon can have skill without anatomy. Some may perhaps believe that books, and plates, and wax figures convey adequate notions of the human structure. This is an opinion natural enough, but entirely erroneous. The knowledge of a surgeon must be precise, we may say to the breadth of a hair, and a description or a fabrication to convey such knowledge must be the work of super-human powers. Could all the art which has existed since the foundation of the earth be combined, it could not produce the leaf of a plant; much less could it construct the most wonderful of the works of nature, the fabric of man. It is probable that a single square inch of the human body contains more parts distinctly organized, than could be represented by all the wax figures which ingenuity has ever contrived.

Without further reasoning on the subject, let us appeal to facts, and perhaps you will expect me on this point, to speak from personal experience. When for the first time in this vicinity, I ventured to propose tying the wounded artery of a limb to save a man's life, it was thought impossible to do it with safety, and the individual was lost. On the next occurrence of a similar accident, I tied the wounded vessel without consulting the friends of the patient. His life was saved; and since, I have done the same operation in a greater number of cases than I can recollect or venture to state, and this with uniform success, save in one single instance, when the patient perished from the effects of bad habits. The Strangulated Hernia is a disease, to which every man is liable at each moment of his life. Formerly such cases if not reducible by pressure, were allowed to proceed to mortification and death. It is stated in the "Address to the Community," that one physician judged, he had known of an hundred fatal cases of this disease, which could not be operated on for want of anatomical knowledge. The number of such instances as have fallen to my lot with successful results, has been very considerable, and I have the satisfaction to know that many valuable persons have been preserved to society to this day, who would otherwise long since have terminated their earthly career. When we consider the numerous cases of other diseases and operations with similar results, and the successful operations performed by other practitioners, and the still greater number of fatal diseases scattered through the country, which might have been saved by an adequate knowledge and practice in anatomical science, it must be admitted that this subject is one of public and National interest.

The knowledge, which the voice of humanity so loudly calls for, is proscribed by the laws of our Commonwealth. The student, who neglects to acquire a competent skill in his profession, is treated with neglect and exposure and prosecution, while he who takes the proper methods of qualifying himself is menaced with long confinement among felons. Is there any thing in the

nature of anatomy, which calls for such severity? Is it a crime to study the wonderful works of the Deity in this most perfect form? Is it contrary to reason and nature to inspect the interior of a dead, decomposing body, with the intention of learning how to preserve the living frame from disease and mutilations and pain? Is it better that the living poor should suffer protracted tortures from the ignorance of those to whom they are committed, than that a few bodies rescued from the worms should be devoted to the noble purpose of instructing mankind and ameliorating the condition of poverty and distress? Is it not practicable to reconcile the honorable prosecution of the study of Anatomy with those deep and unchangeable associations, with which we regard the relics of our deceased friends? That these questions may be answered in the affirmative by the wisdom of an enlightened and benevolent Legislature, I most surely believe and most ardently pray.

I have the honor to be very respectfully

Your obedient servant

JOHN C. WARREN.

JAN 19 1957 *ph*

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