

Burden (J. R.)  
INTRODUCTORY LECTURE,

DELIVERED AT THE

WINTER SESSION

OF THE

PHILADELPHIA COLLEGE OF MEDICINE.

NOVEMBER, 1847.

BY

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PHILADELPHIA, NOVEMBER 16, 1847.

PROF. JESSE R. BURDEN, M. D.

SIR,

At a meeting of the Students of the Philadelphia College of Medicine, held November 15th, the undersigned were appointed a Committee to request for publication, the very able and interesting Introductory Lecture delivered by you at the opening of your course for the present session. We therefore respectfully request a copy for said purpose, by complying with which you will confer a great favor on the class.

Very Respectfully,

Your Obedient Servants,

N. RICHARDS MOSELEY, of Penn.,  
C. DWIGHT PRESTON, of Conn.,  
THOMAS KENNEDY, of Va.,  
L. G. VINAL, of Me.,  
W. Z. W. CHAPMAN, of Mass.,  
E. J. RECORDS, M. D., of Del.,  
E. BENTLY HALL, of N. J.,  
E. de St. ROMES, of La.,  
G. W. LOMAX, of S. C.,  
J. C. HATHEWAY, of N. B.,  
A. P. GROSVENOR, of N. Y.

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PHILADELPHIA, NOV. 17TH, 1847.

GENTLEMEN:

In compliance with your request I send a copy of the Introductory Lecture of the present Course.

Say to the gentlemen of the Class that this mark of respect with which they have honored me, is duly and warmly appreciated.

I have the honor to be your obedient servant,

J. R. BURDEN.

To Messrs. N. RICHARDS MOSELEY, &c.

# INTRODUCTORY LECTURE.

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AFTER having been engaged the prescribed time with your preceptors, you come here, to attend another department of instruction. You assemble from all parts of the country; you sit, side by side, strangers to each other. You have left your homes and all their endearments, to prepare yourselves for the great struggle of life, for the business of men.

More than thirty years ago, I entered the hall of science, to hear for the first time, an Introductory Medical Lecture, and I can realize your feelings by my own. Your presence recalls that hour with the freshness of yesterday—its mingled hopes and fears—its deep sense of crowded solitude. The mind has no chronology. The mantle of years falls from the shoulders—the dream-scroll of life folds up, and *that* day is present with all the vividness of reality. I can sympathize with the student because I was a student, because I am a student.

Could we of 1819 have known each other on the introductory day; could we have foreseen how many of that class were destined to rise to the highest honors of the profession; could we have known that in the crowd, unconscious of their own powers, sat a George McClellan, a Randolph, a Mitchell, a Wood, and men like them, what would have been our feelings? And when I look on you, I feel the wish to withdraw the veil of futurity, to see who, and how many of the men assembled here, will wear the noblest badges of our Order. I hope that on the first day of November, 1877, you may look back and feel the same pride in the class of this year of the Philadelphia College of Medicine, that I feel this day in the *old class of the University of Pennsylvania*. Yet, gentlemen, proud as I am of that class, and much as I cherish its honors, truth and candor constrain me to acknowledge that the general intellectual standard of the present is higher, much higher, than it was then. It is only necessary to look on the faces here, to read the altitude of mental and moral manifestation, to see the rapid advance of mind and deportment of medical students, to make me feel and know that I am addressing a body of gentlemen with whom it will be a pleasure to be connected—all of whom will do credit to the craft, and many I hope will cover themselves with glory in the highest walks of the profession. Convened from different sections, or from foreign lands, to engage in the same pursuit, to form associations which will never be forgotten, you will learn, if you have not already learned, that intercourse is only necessary to break down the artificial distinctions between man and man; that in science, as it ought to be in *all* the walks of life, we use the designation of nations as the christian names of one great family; that in this land we have worn out prejudices, knowing Truth by no national appellation, glorying in and cherishing it, whether grown on the basin of the Danube or the Rhine; whether its blossoms are gathered in beautiful France, or bestowed by the mother of nations, civilization and arts, “once our guardian, still our guide,” taste-consecrated, time-honored Italy. In the temple of science we ask no man’s nativity, knowing that its columns, pro-

portions and embellishments are the works of men of all creeds and climes of the civilized world, whose joint labors have given wisdom, strength and beauty to the noble fabric of mental architecture.

But, gentlemen, you are told on the very threshold, that the standard of medical education in the United States is low; that the foul stain of ignorance is on its banner. This charge, thanks to the liberality of science abroad, comes not from other lands; it is indigenous; it springs from our own American soil. How shall we sift its truth? Shall we rest upon the evidence of those who depict in glowing colors and with oracular authority, the trials *they* surmounted; the rigid examinations *they* submitted to in passing through the green-box, that ancient locality of graduation—that medical valley of the shadow of death, when we know that the venerable gentlemen have slept over their fatigues ever since, unknowing and unmindful of the rapid progress of the profession? Shall we go to those who travel at a snail's pace from Dan to Bersheba, and cry "all is barren?" Shall we appeal to those who have made up their minds that nothing present, or to come can equal the past; that the "*have-beens*" are the light of the world! Shall we call upon those whose hopes have conjured up a *beau ideal* of perfection, never to be realized until "the angel shall swear by Him who liveth forever that time shall be no longer?"

To ascertain the truth it would be necessary to trace the history of medicine. This is interwoven with the world's history. No department can stand alone; there is a mutual dependance in all. Medicine is enlightened or darkened, stationary or progressive, as the general mind is cultivated or rude. You cannot understand the history of any science without an acquaintance with the history of man, his position, literature, arts, commerce, arms, with all that constitutes the physiology of civilization. To know the state of science in a particular country we must inform ourselves of its existing institutions, with all the facts connected with it, with the state of each branch of science and arts. What of this country—the growth of yesterday?

In naval architecture we were compelled to construct the model before we could build the ship. Commerce and victory have fixed our standard.

In civil architecture, rude as were the first attempts, we have gone on until MOUNT GIRARD rivals the magnificence of the Acropolis, leaving the eye in doubt, whether the peripteral edifice has emerged from the limpid surface of a fairy lake, or been quarried from the mellow tints of an Athenian sunset.

In statuary, the Greek Slave has shown "in form and face what *mind* can make, when nature's self would fail."

In agriculture, we have our daily bread—and enough to spare.

In theology, until education had advanced, we had to do without an educated clergy, and for years to come, the pulpit must be filled by men pious and useful, who know little of Hebrew, with or without points; who are not critical in Greek particles, and who, if they do not murder the king's English, will be forgiven for their ignorance of the dead languages. Although without legal establishment, depending solely on voluntary contributions for support, we are proud of the mental and religious standard of the American clergy, and would not exchange it for that of the most favored nation.

In the legal profession, our laws are based on the English and Roman codes. We follow the direction, "*omnia probate, bonum tenete,*" with the legislation of civilized Europe. Our criminal codes are models for security and philanthropy in the estimation of the most polished nations who copy them. With all this—with our Rawles, and Livingstons, and Kents, it must be admitted that, many, very many, enter that profession whose knowledge of the dead languages is restricted to the names of the writs. Yet in no coun-

try are the rights of persons and of things better protected. The standard of all the professions is that most suitable and only suitable for the state of society. The law which controls it is, that the quantity and quality of the supply, is regulated by the demand. There is no other law, no other check—there can be no other. To command the greatest talent, there must be the demand. There must be a population dense and prosperous, able to pay for skill. Wherever that ability exists the standard will be high.

Who would expect to find in a sparsely populated frontier country the classical and eloquent clergymen, the learned and profound counsellor, the Physicks, Hosacks, Dewees' of our profession? We might as well expect to find in its solitary country store, bales of silk velvet, boxes of maraschino di zara, or diamond necklaces.

It would transcend our limits to repeat the names of Americans of the medical profession who are known wherever the English language is understood, or to describe the improvements made by them. It is sufficient to say that there is no surgical operation with which our surgeons are not scientifically and practically familiar, and that every disease is as manageable in their hands, as in those of physicians any where. From the war of 1813, when our surgeons operated on the same deck with those of Great Britain, they have been received as equals, and in every latitude the *American Naval Surgeon has honorably and ably* represented the profession.

In the front rank of battle where the death-shot flies thickest, you may find the *Army Surgeon*, cool and collected, doing his duty. What is his standard? Read it in every despatch from the seat of war. Read it in the admiration of the Generals, in the respect and gratitude of the rank and file. Read it in your own hearts.

Now inquire *where* and *how* were these civil and military members of the profession educated? *Is the tree corrupt which has produced such fruit?* In every state we have physicians of different grades of learning, and the circumstances of society admit of such difference in every occupation. The residents of agricultural districts want neither learning nor eloquence to enforce the truths and precepts of the Gospel. Peaceful and simple in their pursuits, they seldom resort to law, and require no black letter learning to settle their questions of right and wrong, *meum et tuum*. Frugal and moral, their diseases are few and simple, easily treated by the general practitioner, and when great skill is required they send for it to the towns and cities, and to the honor of the profession it is never withheld. Men of the highest eminence suit the charge to the circumstances, often without fee, and sometimes without thanks.

This law of standard holds in all countries. In the oldest nations, the palace and the hovel stand side by side; the purple and fine linen brush the tatters of the pauper. There are the counsellor and the pettifogger—the bishop and the market preacher—the physician and the quack. Such is society, differing in degree, the same in kind everywhere. Made up of inequality in mind, inequality of means. Such is civilization in the 19th century, and by it, all standards are regulated. As common sense men we must take it as it is, and do all in our power to better it.

It is alleged that the extent of empiricism proves the inferiority of our standard. Who receives the most encouragement, the statesman who confers solid and enduring benefits on his country, or the demagogue who caters to whims, prejudices and excitement? In law, does the learning which convinces the bench always get more applause than the whip-sylabub which tickles the fancies of the crowd? In the military profession, how often is the educated and able soldier, out-ranked by those who never set a squad-

ron in the field, who exhibit all the pomp and circumstance of glorious war, without encountering its dangers? If the great religion of civilization had, from its dawn, imposters to contend with—"men who steal the livery of the court of Heaven to serve the devil in," how can our profession escape?

Empiricism exists in all countries. Its extent depends on the degree of intelligence in the community. The vulgar, whether rich or poor, are its food. In this country there is less than in England, because our proportion of educated people is greater. With all our inventive tact we have yet to generate a system of empiricism. We have to import them, and they come out made up of shreds and patches from the obsolete and cast off drapery of the regular profession. Empiricism will decrease as education advances, and in our country the good and the great are straining every nerve to make education more general than suffrage. Let that cause continue to prosper, and the standard of intelligence will rise in a few years to that degree, that objections to the want of preparatory education for the learned professions will be removed.

The cheapness of medical courses has been assigned as a cause of depreciation. Have the difficulties and inconveniences of travelling increased by the use of steam or by the reduction of fare? Is knowledge less intrinsic, less valuable, when disseminated in Harpers' cheap editions, than when spread on hot press, bound in calf and gilt? Strip such objections of their covering and they mean exclusiveness, an airy nothing, with which we have no sympathies. Mind was given by God for cultivation. When cultivated it will act as a universal solvent on all the useless and pernicious distinctions and vestigæ of distinctions, which originated in mailed, feudal, barbarous ages.

I have touched on the standard of medical education, because to your hands in a short time it will be committed. I wish you to deliberate, and have, in a very general way, offered a few materials for thinking. To do justice to the subject would require the perusal of many volumes. The history of medicine cannot be learned distinct and abstract from all other features of civilization, any more than the physiology of man can be learned by confining your study to the osteology of a single bone. I have called your attention to it, because I wish you to respect and honor the profession into which you are about to enter. Without such feelings you will have many drawbacks on your success. I have made it the feature of the first lecture, because I wish every medical student to form a solemn and enduring resolution to sustain and to advance the "*character of general and extensive knowledge,*" which the great SIR WILLIAM BLACKSTONE says, "*the medical profession beyond all others has remarkably deserved.*"

Gentlemen, those of you who have received a classical education will have few difficulties to encounter in the study of medicine. You have acquired the habit and method of study, gymnastics which give firmness and strength to the mind, ease and direction to its movements. You who commence without this preparation, do not despair. Be determined to succeed, and you will find in the pursuit the basis and materials of a good education. At every step you will encounter the difficulties of technical phraseology; you will have to watch experiments; to master one principle at a time. The truth from instruction will not come to your minds in full development, but like the sown seed to pass through its stages of growth. By these processes your minds will become disciplined; you will learn how to investigate, how to think; you will acquire industry, which is *the* talent. Like the gastric juice it dissolves matter and makes it the means of growth.

Our study is of God's creation. It is the hand book of nature, without which all is hidden or confused. Who can read the animal kingdom with-

out a knowledge of anatomy? From the worm to the mastodon, from the smallest microscopic point of vitality to the greatest mass of organization, whether in earth, or air, or ocean, all are known by comparison with man. Even vegetable life is a sealed book without this standard.

“The chain of being is complete in him;  
In him is matter’s last gradation lost,  
And the next step is spirit Deity!”

Human anatomy is the portal to all our knowledge of animated existence. To arrange and classify the various links in the chain of being, osteology is the agent. To determine the capacities of living things for their appropriate element, the structure of their blood and breathing apparatus must at least be understood. To determine their kind of food, their digestive organs must be investigated. To ascertain their degree of mental or instinctive manifestation, the comparative development of the brain must be minutely studied. Without this Natural Theology is bald, Natural History a mere guess, Phrenology a fable, Geology a romance, and man unworthy, totally unworthy “the dominion” with which God invested him.

Call you him learned who can dote on the beauties of Georgics and Bucolics, and at the same time is ignorant of the laws of life; who cannot tell the number of his own ribs, who stares when told that a whale is not a fish, but who readily believes that the surgeon can take out the human eye, clean and replace it, who cannot place his hand upon his heart without thumbing his navel. How strange that the science of medicine has not been made a requisite branch of classical education!!!

Gentlemen, the principles of our profession are the laws of nature. With all facts, whether sanctioned by oath or by authority, hallowed by the mist of ages, or springing newborn into life, we have nothing to do, but to *test their truth*. Faith has no shrine in our temple, our oracle is reason, our knowledge the result of careful, repeated, *enlightened experiment*. Is our science perfect? No! But it is on the march, onward!

For more than five thousand years the navigator dare not venture beyond the sight of shore. The discovery of the magnet, and concurring causes, enabled him to cross the ocean in 1492; since when, every sea has been whitened by the sails of commerce, the heralds of comfort and happiness to the human race—yet, often as it is crossed, it has not been fathomed, the secrets of the mighty deep are yet unrevealed. So with medicine. After many centuries we have traced the *outline*—have discovered principles, which enable us in most cases to conduct the barque of life in safety. We too, have a thermometer which foretells the storm when least evident to the natural eye, yet the ocean of life is unfathomed.

“In its sublime research—Philosophy  
May measure out the ocean deep, may count  
The sands, or the sun’s rays, but GOD for THEE  
There is *no* weight *nor* measure,  
None can mount  
Up to thy mysteries. Reason’s *brightest* spark  
Tho’ kindled by *thy* light, in *pain* would trace  
Thy councils, infinite and dark,  
And thought is *lost*, e’en thought can soar *so* high  
Even like *past* moments in Eternity.”

Bounded as is our knowledge, yet may we hope from the rapid movements in mind which distinguish this present age, that the men of 1900, A. D., will be as far beyond us, as we are beyond the age of Hippocrates.

To study medicine, the usual preparatory education, common sense and application, are all that is requisite. You need not be the seventh son, nor have come into the world with a caul on your head to be a doctor. All you require is to use your senses. If you have no taste for the study you will acquire it. *Poeta nascitur* may be true or not, but no man is born a physician. His genius is the offspring of application; his talents consist in the knowledge of facts and principles, and in the power to combine and discriminate. The excuse of having no taste or turn for a study, means indolence or ignorance; it belongs to the nursery, not to manhood.

We hear of people who have no ear for music, compel them to apply, and the auditory nerve will do its duty,—at least it has done so in Italy, and Mr. Dorigo has proved that it does so in this country. Others have no turn to learn a foreign language, as though there was any anatomical or physiological difference between a Frenchman's tongue and a Yankee's. Place such in a foreign land, and their ears will appreciate the sound, and the organs of speech conform to it. Scott, the great theologian, had so little taste for the clerical profession, that he preached for years, an unbeliever in the essential points of religion. His work on the "Force of Truth" shows how he overcame the repugnance. Frederick of Prussia, had so little taste for the military profession, so much *constitutional dislike*, that he fled like a coward from the first battle; yet he became the brave and scientific founder of modern tactics, and his system, practised by able hands, has won the applause of the world. I could name men in the medical profession, who for years had no taste for its studies and pursuits, but who have risen to the highest eminence, by their zeal and abilities. The mind can acquire tastes as well as the palate, and materials, at first, as repugnant as olives or tobacco, will acquire all the force of second nature, become "bone of our bone and flesh of our flesh." Gray hairs and experience to the contrary notwithstanding, I know only of one way of learning to swim, and that is, to go into the water.

Gentlemen, in learning the profession, make Anatomy your closest study. Use your ears *much*; your eyes *more*: your hands *most*. Learn to read the human body, as the blind read by raised letters. Dissect and reflect. Next, Chemistry. It addresses only the intellect—it has no fancy sketch, no poetry to adorn it, but it is one of the foundations of knowledge and beauty. It is throwing its bright light on the hidden recesses of vitality, unrolling the scroll of nature. We dare not utter our anticipations of its destinies. Its revelations may burst upon us like a thief in the night—let us be ready.

Confine your reading to the text books. They are the ledgers, in which all that is valuable is posted up, exhibiting a balance sheet of the state of the profession. When you have done with medical lectures, you will read other professional books with the advantage of *knowing how to read*. Xerxes shed a tear reflecting on the mortality of his myriads—you may ere long feel that the rapid advance of knowledge will consign brigades of books to oblivion.

Learn your profession as you learned arithmetic—rule by rule—example by example, in order. When you learned that two added to two equalled four, you knew it as well as Sir Isaac Newton. In medicine, master one principle, and make it your own, before you proceed to the next. Place no reliance on the figment called genius. It is like the armour of Saul, it



will not fit you. Use common sense, and uncommon industry, feel like Virgil's boatmen "*si forte brachia remissu*" that if you drop the laboring oar you will be carried backward. Use application and skill, and you will "conquer victory."

In schools of navigation principles are taught, but something more than the school is requisite for the mariner. He may know how to ascertain his position—may calculate the direction given by opposing forces. He may be familiar with the ship, from the keelson to the truck, and "know the ropes," but all this is not enough. The ocean must be encountered, its storms must be felt. So in medicine, all that can be taught by lectures is no more than the *preparation for practice*. Make good use of your time and opportunities here, and the knowledge of facts and principles will enable you to succeed. If you are false to yourselves, the diploma and all its Latin will be as useless for the objects of your profession, as a policy of insurance to a foundering ship.

The department assigned to me in this College is *MATERIA MEDICA*,—a branch which, at first view, is covered with beautiful foliage, clustered with flowers, all the gorgeous colors of the tropic, to the fading gray of the Arctic regions—vegetation *not innocent*, as the vulgar believe, but deleterious to life, unless controlled by mind. The path is strewn with minerals, whose lustre and starry chrysalization are resplendent with beauty—messengers of health *only* when directed by intellect. Poetical as the subject may appear, it is not so in reality. There is little in the study to feed the imagination; the intellect alone is addressed, not reveries of fancy, but stubborn facts are to be investigated.

Abundant as are the *materials* of medicine, we shall endeavor to impress upon you the great responsibility of administering a dose. It is a great object in life to know when and how to act, yet he possesses *great* knowledge who knows when to do nothing—not the ignorant, but the "*MASTERLY INACTIVITY*" which one of our country's brightest ornaments has named in another science.\* We believe that the physician ought to have the brains—we know that the medicine has not. It has no charmed volition, like the bullet in Der Freyshutz, to hit the mark, though shot at random.

Nor has the disease *mind*, to take its choice out of a multitude of articles administered, of that most suitable to its character. If the physician then want intellect, God help the patient! Gentlemen, of my capacity for teaching, you will be my judges. I would rather,† much rather fail in promise than in performance. I will try to lead you, along the paths I have trodden, in search of knowledge, as far as my slender ability will permit; and I feel confident that no co-operation will be wanting on your part. Your starting point, is the accumulated knowledge of preceding generations. It will be your duty to sustain and advance the standard of professional knowledge. I know and feel that it will be done.

\*Hon. J. C. Calhoun.



PHILADELPHIA COLLEGE OF MEDICINE,  
FIFTH, SOUTH OF WALNUT STREET.

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THE SPRING AND SUMMER COURSE OF LECTURES FOR 1848, will be commenced on Monday, March 6th, 1848, and be continued four months. The faculty are:

JAS. McCLINTOCK, M. D., *General, Special and Surgical Anatomy.*

J. R. BURDEN, M. D., *Materia Medica and Therapeutics.*

D. P. GARDNER, M. D., *Chemistry and Medical Jurisprudence.*

HENRY GIBBONS, M. D., *Institutes and Practice of Medicine.*

JAMES McCLINTOCK, M. D., *Principles and Practice of Surgery.*

LOUIS H. BEATTY, M. D., *Obstetrics and Diseases of Women and Children.*

S. R. McCLINTOCK, M. D., *Demonstrator of Anatomy.*

RICHARD BURR, M. D., *Prosecutor of Surgery.*

Fees for the full course, \$75. Fee for those who have attended two full courses in other Colleges, \$40. Matriculation to be paid once only, \$5. Graduation Fee \$20. Practical Anatomy, including Recapitulatory Lectures, \$10. The Dissecting Rooms will be opened on the 1st of March.

For further information inquire of

JAMES McCLINTOCK, M. D., DEAN,

No. 1 North Eleventh Street.

Philadelphia, December, 1, 1847.

