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ADDRESS

OF

MONTGOMERY JOHNS, M. D.,

DELIVERED AT THE OPENING OF THE

Twentieth Annual Course of Lectures

OF THE

MEDICAL DEPARTMENT GEORGETOWN COLLEGE,

OCTOBER 1, 1868.

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WASHINGTON, *October* 3, 1868.

SIR: In behalf of our classmates we have the honor to request for publication a copy of the address delivered by you on the 1st instant, introductory to the Twentieth Annual Session, Medical Department Georgetown College.

We are, sir, your obedient servants,

T. C. RICH,
F. O. ST. CLAIR,
C. H. ECKHARDT.
Committee.

MONTGOMERY JOHNS, M. D.,
Professor of Anatomy, Descriptive and Surgical Regional.

WOODSIDE, *October* 5, 1868.

GENTLEMEN: Accompanying you will find the address requested in your polite favor of October 3d. I most heartily wish, the paper bore less evident marks of haste in its preparation. It was written amid the pressure of the many cares and occupations incident to the commencement of my usual duties at the beginning of each school session.

Yours, very sincerely and truly,

MONTGOMERY JOHNS, M. D.

MESSRS. RICH, ST. CLAIR, and ECKHARDT.

ADDRESS.

LADIES AND GENTLEMEN,

Students of the Medical Class of 1868–'69, *Corporate Authorities of Georgetown College, and my Professional Brothers in the Science and Art of Medicine:*

This evening the pleasant duty has been devolved upon me, by my associates in this medical school, of welcoming you to this hall and of congratulating you and the good citizens of the National Metropolis upon this reconsecration of this goodly edifice to the sacred cause of medical education. The establishment and successful inauguration of any school of learning in the midst of a vast city is an event calling for public congratulation, and well worthy of civic demonstration such as smiles upon our efforts this evening. The rise and growth of mere academic, legal, theological, or scientific academies, though these may be subjects of public congratulation, are, in municipal importance, events of much inferior value and significance, when compared with the establishment or further development of a school devoted to medicine as an art and as a science. In the train of every well-conducted medical college spring up general and special hospitals and dispensaries, well-filled medical libraries and museums, wiser and more efficient plans for public hygiene, professional emulation among practicing physicians, really vital medical societies, and in and out of our profession a higher tone of professional sentiment, thought, language, and conduct; in a word, an *esprit du corps* in a body vitally aggregated around a living, working, thinking, scientific centre.

Paris, Berlin, London, Edinburgh, and Dublin are now in the present, as they have been in the past, the vital centres of British and Continental medical learning.

Every rich man, as well as every poor man, in a community in whose midst arise any vast college and hospital, has a personal interest in the learning, the skill, the zeal, and the personal honor of each member of its teaching and practicing medical and surgical officers. Here are tested publicly the pretensions of those who claim to be competent to teach the science, and practice the art to which physicians and surgeons profess to devote their lives, their energies, and their very selves, in solemn consecration to the welfare of suffering man.

One hundred years ago a worthy merchant of London, while a director of St. Thomas Hospital, administered a merited, bold, but brave and noble

rebuke to a physician of no less eminence than the celebrated Akenside. It had come to the director's ears that the doctor was brusque and even rude to the poor patients committed to his care in the charity wards, and that on a recent occasion he had even excelled himself in want of forbearance and kindness toward this class of his daily patients. "Doctor," said the plain-speaking merchant, "you are only the servant of a noble public charity, where you are temporarily performing duties for us, the directors. These sick poor have a right to uniform and polite attendance from every physician whom we hire to attend them, as much as from the nurses who are paid to carry out *your* orders; they and you are equally our servants in this humane service toward our suffering fellows."

Noble words, these, and worthy to be engraven upon the heart of every physician as he ministers among the indigent sick, whether in the alleys of vast cities, in the humble cottages of rural communities, or in the crowded wards of celebrated hospitals. In your student days, then, my young friends, you have a right to expect that your medical teachers in the lecture room and in the hospital ward, as well as in their private associations with you as tutor and pupil, shall ever exhibit that kind politeness and polite kindness which hardly any dares overlook in the splendid homes of the wealthy sick, but which is sometimes forgotten by humbler bedsides of suffering and afflicted men. Man ought to be, said Celsus, most like the Gods when dispensing health among men; as we teach, my brother professors in the Medical Department of Georgetown College, quite as much by our dress and manners, our style of thought and expression, as by our formal utterances, *ex cathedra*.

Whatever changes distinguish the medical student of to-day from his predecessor of the times of Vesalius, Cheselden, Parè, John and William Hunter, times when physicians were often brusque, overbearing, coarse, and ill-grained, and yet rose to distinguished eminence in spite of these social vices, the causes of these changes in the student may be found in changes which the advance of refinement has wrought in ourselves, their teachers. A rapid glance, then, at the past status of physicians in the old world will enable us to detect readily these causes, to depict the medical student of the time of Charles I, to sketch his successor of to-day, and to anticipate some of the lineaments of the medical student of the close of the present century; when our labors and those of our junior cotemporaries being ended, you, young men, then rich in wisdom and experience, shall take our places and more perfectly perform the duties we endeavor to discharge.

The sister arts of surgery and medicine have advanced almost step by step with every advance in the art and science of war. Military hygiene was created by the conditions which arise amid great armies. Civil hygiene rose to importance in the vast cities of imperial Rome and mediæval Europe only when conquest, immigration, and commerce brought into being vast military or trading communities. The invention of gunpowder and the bayonet in earlier days, and more modern developments of military science in weapons for attack or methods of defence, have created new conditions for medical science and new requirements for medical art.

The opening lines of the immortal Iliad depict the ravages of pestilence in a mighty army; as Chapman renders them:

"What time Achiles' baneful wrath imposed
Infinite sorrows on the Greeks, and many brave souls loosed
From breasts heroic; sent them far to that invisible cave
Which no light comforts, and their limbs to dogs and vultures gave;
When Apollo, fired against the king of men for contumely shown his priest, infectious sickness sent
To plague the army, and to death by hosts the soldiers went.
Like the night he ranged the host, with his hard loosen'd hand,
His silver bow oft twang'd.
His arrows did first the mules destroy, and swift hounds, then the Greeks themselves his deadly arrows shot;
The fires of death never went out; nine days his shafts flew hot
About the army."—*Iliad, Book I.*

Or, as modern science would express it, the malarial fevers which decimate camps badly located and badly cleansed. Here the military surgeon of old, the associate and equal of his brother warriors, learned the fearful nature of hemorrhage, the painful and often fatal tendency of fractures, punctures, and concussions, while the physician pondered upon the cause, symptoms, and march of fevers, and learned to estimate excessive mental and bodily fatigue, anxiety, and watchings, defeat, new and illy-prepared food and drink, as more fatal than the glittering sword or the shining spear.

The splendid conquests of Alexander of Macedon, brought new appetites, new dresses, new vices, and new diseases into civilized Europe. But they also brought to the study of Aristotle new plants and new mineral substances wherewith to combat disease. For fully an entire century medical art was developed in two directions solely, viz: in the study of these new drugs and their application to disease. This period is marked by a host of able writers upon medical botany, pharmacy, and symptomatology, the splendid beginnings which culminated with the scholars of the Library and Museum, of Alexandria, B. C. 300.

Although by this period medicine had become fully divorced from the sacerdotal offices of the Greek and Roman priesthood, and tended to become, up to the era of the pious Galen, A. D. 131, almost an atheistical science, the medical student of the anti-galenical period was little more than an expert botanist and mineralogist, and carefully-taught symptomatologist, skillful in the use of a few efficient but clumsily-fashioned surgical instruments; a most careful follower of the empiracism of Hypocrates, but knowing nothing of chemistry or pathology, and next to nothing of human anatomy and physiology. Chemistry and pathology were as yet uncreated sciences; and religion forbade vivisection and the repulsive pursuits of human dissection.

The medical teachers of this early day were necessarily dogmatist They taught and required their students not only to swear "*in verba magistri,*" but to repeat their own procedures in medical and surgical cases, and to transmit from age to age a venerable but almost useless moles of medical doctrine; whose contradictions and ill-founded pretension were carefully

concealed by its peculiar and abstruse technical phraseology. This age had no great hospitals. In divorcing medicine and the priesthood, the temples of Apollo, Hygeia, and Hippocrates no longer afforded to the youthful physician the clinical histories and observations of a former period; but still medical men were not illy educated, even though they knew but little of anatomy, physiology, chemistry, and pathology. They were usually mature men before commencing medical study. The gymnasium had given them physical courage and endurance; the drama and national games had refined and disciplined their æsthetic tastes. In history, politics, poetry, ethics, logic, and geometry they were most carefully taught by the oral teachings and disquisitions of eminent teachers. They brought well-disciplined intellects, refined tastes, and good judgments to their professional studies. They had enjoyed intimate association for several years with men of superior acquirements; and association with such men is in itself almost an education. That such agencies produced a Galen, A. D. 131, a Celsus in the era of Tiberius can create in us no surprise. The practice of medicine was in the hands of a highly educated class. It required superior wealth or peculiar energy and talent for its study. It presupposed not only thorough preliminary academic training, but required costly travel and tuition fees for its completion.

The conventional dress and demeanor of a physician or surgeon in the time of Augustus bespoke good taste, personal dignity, and a liberal style of domestic expenditure. The writers cotemporary with Thucydides, Sallust, and Tacitus speak in terms of honest admiration of the character and pursuits of cotemporary physicians. Both teachers and students were educated, refined and earnest men. Their intercourse was based upon mutual courtesy; and their social standing was honorable and liberal.

In the dismemberment of the Roman Empire, A. D. 375, and the irruption of northern nations upon the circum maritime States of Southern Europe, medical education presents no especial progress until the establishment of Moorish civilization, A. D. 711, in Southern Spain. The naturism of Hippocrates was now revived in its influence upon European medicine in a new and even more practical method than in the hands of Greek, Alexandrine, or Roman teachers. The schools of Granada, Cordova, and Seville, taught by eminent Moorish and Arabic teachers, (a flexible, logical, expressive, and metaphysical language being the vehicle of communication,) became a new vital centre of medical opinion. The Arabian philosophers were liberal, without atheism, naturists; although eminent in logic and metaphysics. They possessed accurate translations of Hippocrates, Theophrastus, and Dioscorides. Chemistry was a nascent science; mercury, iron, arsenic, and alcohol had enriched their pharmacopia; their religion enforced chastity and personal temperance; war had familiarized them with post mortem dissection and its necessity in medical investigation; osteology and myology were fully understood and taught; taxidermy, by means of spices, alcohol, syrups, and turpentines, afforded the means of preserving morbid specimens; the peculiar skin diseases which invaded Europe, wherever Christian was brought into contact with

Mahommedan peoples; the simultaneous appearance of wide-spread febrile epidemics—these and other causes, eloquently summed up by Draper in his History of Modern Civilization, tended to give special importance to the great Moorish schools of Southern Europe, to dignify the language of the infidel, and to impart new zest to medical study as pursued in their vast schools. Avicenna, Averroes, and the great lights of this period have added dignity to human history by their observations, their writings, their philosophies, and their influence upon European civilization in the tenth century. It was no small gain that they taught in their own vernacular, Arabic tongue. Poetry and fable had already demonstrated its fitness as a medium of elegant thought, and the metaphysical writers early succeeding Mahomet had tested to the utmost its capacity in dialectic disquisition.

The Moors were nationally brave, clear-witted, reflective, fond of physical observations, and the conservators of two sciences just springing into being, viz: chemistry and physical philosophy. What manner of students thronged around such teachers? Like pupil, like teacher; medicine ceased to rest upon authority, and was refounded upon observation. To master the oriental dialect demanded time, and produced mental discipline. Students, *i. e.*, men who had really studied, lectured to students, *i. e.*, men who were earnestly engaged in study, and the result was what it always must be, advanced intellectual culture. Their observations upon the physical and medical properties of drugs were accurate and extensive; their notions of anatomy and surgery, simple but clear, and well derived from dissection and clinical experience; their chemistry and physics made a beginning in physiology and pathology now possible, De Sacy tells us, Arabic grammar is the most philosophical product of the human intellect. A no mean precursor, then, to your studies, gentlemen, were you twelve hundred years ago pursuing your medical education at Granada or Cordova, listening to Avicenna in his mother tongue, the soft air of Granada bringing to your ear words equally as beautiful and expressive as the language of Homer and Aristotle.

Up to the invention of printing, A. D. 1436, 1462, and 1474, of the method of mezzotinting, and cheap copper engraving, the methods of medical education remained unchanged. Spain and Italy were, and continued to be, the great foci of intellectual culture. Thither wended his way the Irish, Scotch, English, German, and French student, after years of preliminary study in mathematics, and the classical languages; to listen to lecturers read in the Arabic or Latin tongues—languages whose acquisition had cost the student years of toil and well-filled purses of gold

The protracted conflict between France and England, and then between Spain and England, the wars of the low countries, produced home schools in France, Great Britain, and Holland; hospitals were created by the needs of vast armies and long campaigns. The rise of an almost new disease about the time of the siege of Naples, A. D. 1494; the new and altered character of injuries inflicted upon the battle-field; the now ascertained value of mercury, iron, and bark; the successful pursuits of the chemists

and physicists of Holland and France, these created what we may safely call the rise of modern medicine. While the student of medicine gained somewhat in changes now occurring, he lost also in the lowered standard of preliminary education and in the rapidly increasing number of topics now entering into the curriculum of medical education. When Latin was laid aside as the language of the professors' lectures and examinations, whatever advantages are secured by its study, were lost to the young student of medicine. In the sudden and wonderfully rapid development of the physical sciences by Van Helmont, and the Leydon professors, mathematical and metaphysical studies were less insisted upon, and in consequence the medical classes of the fifteenth century consisted of undergraduates of less severe mental discipline than their predecessors of the tenth century.

There were more mere doctors made, perhaps; but fewer medical philosophers abounded. It availed but little that seven years of study were required. Stahl insisted that these seven years were needed to master his chemistry; Tulpius asked the same amount of time for his physiology; De Ruysch and Swammerdam required at least seven years to exhibit the minute anastomosis of arteries, veins, and absorbents; the predecessors of Morgagni and the Bernouillis, could occupy the full time with their pathological and physical observations; Parè and Vesalius had important modern observations to state, and ancient notions to refute and disprove—the Greeks, Romans, and Arabians are all wrong, say they; and we moderns of 1600, with the light of new sciences, must build anew the temple of medical learning. Though printing had made books more numerous, and engraving had added to their utility as hand books, folios and quartos were unconscionably costly even yet, and the best part of instruction was necessarily oral. If lectures were less didactic they were, sad to say, more unfortunately polemic and controversial. Indeed, the professional Billingsgate enbalmed in the Latin folios of the Vesalian era is one of the most marked characteristics of the literature of the time; but for all it was the palmy period of anatomical study and discovery. Then there were muscles unnamed to receive the names of the describer, and ligaments and sinuses, and valves, and canals, and ducts and glands, to hand down the names of Poupart, and Morgagni, and Valsalva, and Harris, and Wharton, as well as the line of geographical discovery, lands and bays to tempt the adventurous navigator toward climes unknown. Surgery demanded minute dissection; chemistry and physics made these possible, and anatomy *en grande* and *en petite*, descriptive and microscopic, were toiled upon most successfully.

On the other hand, in our day, and in our continent, but one discoverer has rediscovered (in 1824) a previously-described muscle and thereto affixed his name. As a cotemporary poet narrates the discovery—

> "The great Professor Horner,
> At the orbit's inner corner
> Of a half-dissected human eye,
> With much ado and learned bustle,
> Found therein a tiny little muscle,
> And cries, what a lucky man am I."

Whereupon the medical historian tells us, that Horner's musculus *tensor tarsi* was (in 1819) prediscovered and predescribed by Rosenmüller.

If there is no further field for anatomical discovery, then is much to be done in elegant display, brief and neat description, and careful pondering over the surgical relations of parts.

Two events in geographical discovery produced a deep and lasting impression upon the science and art of medicine; we mean the Portugese discovery (in 1487) of the cape of Good Hope, the consequently new, shorter, and less-expensive route to India, and (in 1492) the discovery of Saint Salvador, South and North America, by Spanish, French, and English navigators. These voyages enriched medicine by new and hitherto unknown drugs, or by more abundant supplies of drugs long known. The effect of climate and soil upon human health seem now, for the first time, to have been fully comprehended; long voyages, insufficient diet and ventilation on ship-board, produced among seamen diseases seldom occurring upon land. Nautical medicine and naval hygiene made large demands upon the then medical science of the Historic Period of Maratime Discovery. The commercial and financial importance of these expeditions to Ferdinand and Isabella, Henry VII and Henry VIII, and to the cotemporary sovereigns of France and Germany, crippled as they were by the large debts of their recent wars, made these sovereigns the most anxious and interested inquirers at the oracles of medical learning; and the rapid disappearance of infant but costly colonies, from fatal disease, rendered each enlightened ruler anxious to send out competent physicians with every expedition. The spirit of the age infected the medical classes of the time, and the biographies of their physicians show many an eminent name, at the outset of professional life, engaged as a colonial or naval surgeon. The almost universal spread of the Morbus Neapolitanus, A. D. 1494, finding its subjects on the thrones, in the courts, pulpits, cloisters, and armies of Europe, lead the crowned king and the mitred bishop, as well as the humblest soldier, to value and cherish the physician of that early day. Medical learning was valuable, our art was a necessary one, and teacher and student were alike respected and respectable.

The invention (A. D. 1406) of oil painting and the revived art of classic sculpture after the antique model, begot an almost fraternal intimacy between cotemporary artists, anatomists, surgeons, and chemists. In the theatre of Vesalius (1500) you could almost daily see Titian and his pupils, as well as the king and his retinue. The facial and corporeal expression was studied near by the operating table of the surgeon; and as death, disease, deformity, and sleep enter largely into the subjects of the great religious pictures of Da Vinci, Raphael, Vandyke, and Rubens, so these masters walked daily, in sympathetic interest, arm in arm with the medical students, the wards of Florentine, Parisian, Spanish, and Dutch hospitals, and there saw those figures of suffering and dying humanity, which have made their canvass immortal with the tints of genius.

The associations so formed were noble and ennobling. The artist loved his medical friend with a regard which was mutual. The best art critics

it has been my good fortune to know have been in the ranks of medical men. As a class we must train ourselves to recognize form, outline, and color merely to recognize the symptoms of disease.

Permit me to invite you (A. D. 1523) into the lecture room of Vesalius. He is discoursing upon the arteries of the human arm ; the dissection is the joint labor of himself and the artistic fingers of Titian ; the hour is eleven in the morning. Already the students hav e begun to assemble; gay and gaily attend French youth, dignified Spanish cavaliers, lithe but swarthy and graceful Italians and Greeks, blue-eyed Britons and Germans, phlegmatic Hollanders, and here and there an auburn-haired, blue-eyed Celt. Each wears the national costume of the period, and the universal note book, ink horn, and writing tablets. Fine fabrics of gaily-colored silks, woollens, and cotton, velvets, cloth stuffs, leather, plumes, gold lace, and the fine point work of Belgium and Italy, are brightly mingled in the varied costumes before us. The small sword seems universally worn, save by the ecclesiatics, who are scattered through the throng, noble-hearted men who are fitting themselves to minister to the bodies as well as souls of Pagans in the newly-discovered realms. All eyes are intent upon the anatomical table, when Master Andreas enters, with MS. in one hand and scalpel in the other. He is a goodly man, fully six feet in height, and proportionately built ; his elegant doublet of velvet and fine fur only partially concealed by the academic gown which hangs loosely over his shoulders ; his limbs, exposed from the knee down to the foot by his tightly-fitting silken stockings, are a worthy study for the painter ; his slashed and looped pantaloons; his elegantly-made buckles and shoes ; the richly-jeweled sword, and massive ring worn upon the thumb of the left hand ; the costly point laced collar, illy concealed by his full reddish and curly beard, which divides in two points over his broad chest ; the figure, bearing, dress, and adornments of the man bespeak rather the warrior and courtier than the student and teacher. At exact noon every student is seated, books and pens in readiness. The master reads slowly but distinctly a description of his dissection, expressed in correct and well-spoken mediæval Latin. He adheres closely to his manuscript, only to glance toward Father Antoine, his translator, amanuensis, and composer, whose latinity secures correctness and even elegance in the daily prelections, when a word or a letter is difficult to decipher. From time to time a gentleman of the court comes in and moves courteously and quietly toward the reader, and soon the blue-eyed and fair-haired Emperor and his military officers. Every eye is fixed upon the lifeless dissection ; every ear drinks in the clearly-uttered Latin description. Titian scans the varied and brilliant assembly and treasures up groups and postures for a future canvass. The hour has expired ; the assembly breaks up into chatting groups ; the Emperor approaches the table, examines the arteries above the elbow, and speaking partly to the teacher and partly to a group of students gathered near, says: "Well, Master Andrew, if our scurvy chirurgeons in the low countries had thy wit or thy skill we would not have buried so many brave men before Antwerp ; truly thy sagacious knife and silken cord were sorely needed

by my brave Spanish men." "Sire," replied Vesalius, "were all sovereigns as liberal toward our art and mystery as is my noble Emperor, Spanish soldiers would not fear the knife of the Dutch doctor more than they dread Holland swords or pikes. Burgius knoweth no anatomy; how, then, can their leeches be skillful among wounds. He hath not read my Anatomia Vera; yet ventureth to call me a spanish magpie, who stealeth jewels from Galen and the ancients—pardon my wrath, sire, but I loathe all lowcountrymen and heretics, be they soldiers or civilians; they are scurvy dogs before a Castilian gentleman." A murmur of applause goes around the hall; the royal party moves slowly away; and the King and Master Andrew are alone.

Shortly Vesalius was sent as a private agent to the Low Countries, although ostensibly only to hold a disputation with Burgius, and the diplomacy of years turned upon the confidences of that hour.

The main figures in this sketch are from nature, and only the coloring and accessories are fictitious. The artist has preserved the remembrance of the occasion in the fine portrait of the anatomist which adorns his Anatomia Vera, representing Vesalius demonstrating an arm to the Emperor.

We have now traced the progress of medical education from the period of Hippocrates to an era essentially modern. From the beginning of the sixteenth century up to the time of Jenner (1789) the methods of professional education were almost unchanged. In turn, the universities of Turin, Paris, Madrid, Padua, Leyden, Edinburgh, Oxford, and Dublin became the favorite homes of professional learning. The successive improvements in printing and engraving made books cheaper, less cumberous, and more available. The celebrated museums of Morgagni, Valsalva, Hunter, and S. Everard Home, the osteological collections of Cambridge and Paris, were almost simultaneously collected, and did much to facilitate instruction.

The redemonstration (1692) by Harvey of the circulation of the blood, the chemical investigations of Black and Rumford and Scudamore (1790) gave a new impetus to physiology and Pathology, and were reflected in the theoretical writings of Brown, Cullen, and Boussais, no less than in the special treatises of Haller.

In England the Protectorate of Cromwell, and in France the reign of the Democratic Republic, were marked by a lowering in the tone of social intercourse in all classes of society, and nowhere more markedly than in the medical profession.

The period of the second Charles restored for awhile the courtesy of social life in England; but with the Hanovrian Georges vulgarity, coarseness, and pretention took the place of the genial refinement of the days of Sir Philip Sidney. The roughness of John Hunter, and the well-known brusqueness of Abernethy, were reproduced in the roystering and blustering medical student of Edinburgh and Dublin, at the commencement of the present century. This was, however, only the analogue of the freshmanship of American colleges and the club life of the German University. A conventional disregard of the proprieties of language, dress, and mann r

tolerated at one period of studentship, to be laid aside forever when the real business of life was begun. It was fortunate that in England court physicians were usually intrusted with their leading metropolitan hospitals. Their eminent social position and refined bearing did much to repress a growing tendency to lay aside the conventional dignity of your brethren in the days of Sir Hans Sloan and the elegant Lettsome. The cotemporaries of Rush, Physic, and Nathan Smith, the elder, in our own country, retained a courtliness of bearing and elegance of apparel, now fast disappearing amid our democratic and leveling social institutions.

What shall we say of the medical student of to-day? Is not his time fully occupied in the minimum period of those three years required for his collegiate study? Do not theory and practice, civil and military surgery, the art of the accoucheur, chemistry, pathology, anatomy, materia medica, therapeutics, and microscopy all demand his almost simultaneous attention? Are not journals awaiting to be read, hospitals and dispensaries to be visited, museums to be examined, medical societies to be attended, and new books to be looked into? And where can you find time for reflection and digestion?

The history of Europe since 1801, and of this country since 1832, is pregnant with causes which have resulted in placing scientific medicine where you now find it. The Peninsular war (1801, 1812) and the recent American Rebellion have each produced a marked influence upon cotemporary physicians and upon medical education. The new spirit infused into French and British medicine by the surgical writers of Napoleon's and Wellington's long campaigns will be reproduced, or rather is now revivifying the profession in America from similar causes operative in the vast American armies, and well-appointed military museums. How fast we make history now-a-days is well illustrated by the rapid and complete collection in the adjacent army museum—a collection whose arrangement and completeness may well fill you with pride. When that museum can be made more accessible to every student in this Metropolis; when its various catalogues shall be completed and printed; when the labors of its histriographers are more advanced, then the value of the institution will be apparent to even the most unreflecting student. Every preparation in yonder vast museum teems with instruction for him who can read it aright. It is a synopsis of the good and bad medicine and surgery of the late war. I feel sure coming years will make that museum more and more efficient for your good. In their several introductory lectures, my fellow-professors will say to you their first words of advice; they will explain to you the topics they propose to treat, will give you directions how you can most profitably study each particular branch. They will, as the winter goes on, become better and better acquainted with you as men and with your mental peculiarities. There is *no one* universal method either of teaching or of study. These professors are men skilled in the business of medical instruction. who can and will give you all the aid you require. They are more; they are your personal friends and well-wishers, and will take a life-long interest in your professional advancement. Their own successful career in

professional distinction should awaken your emulation, and incite you to take an advanced place among the physicians of your time, while their wisdom and experience will assist you to make your wishes possibilities. Books are now comparatively cheap, and such is their varied excellence that it is difficult to say that one is really better for your purposes than another. All the illustrative arts are invoked for your instruction. Engraving, painting, wax and plaster models, the photograph, microscope, and calcium lantern, all tend to aid you in comprehending oral instruction. The private "quiz" and more public class examinations all aid you in testing your progress. Make haste slowly, *multum non multa*, should be your motto. Master a little daily, however slowly you advance; let your progress be real, into solid learning. Become not confused in attempting to much, but do a little steadily and do that little well. The diploma must not—indeed, it cannot—terminate your period of professional study. It only places you in more favorable conditions to pursue these studies, and testifies that you have mastered the rudiments of the art and the elements of our science. Judgment and tact, rather than encyclopedial learning, are the characteristics of every successful practitioner. The sneer of a court gentleman, which so wounded the enthusiastic Lettsome—"Doctor, the ancients attempted to make medicine a science and failed; you moderns have rendered it a trade and have succeeded"—embraces, if not the whole truth, a large moiety of it, at least. It is a trade; a noble trade, requiring liberal culture, high personal honor, and a heart alive to the claims of human suffering; but it is further a trade amenable for success or failure to the ordinary principles of human business affairs. Politeness, punctuality, accuracy, prompt ness, courage, kindness and address, do much in all these matters to secure success.

Can we conjecture with any profit what manner of men or women, perhaps, the professors and students of the next century will be. Are we to give back to you, ladies, the apothecary's and Leech's arts as you held them in the days of Rebecca, the Jewess, and her knightly lover? Will men retain only those portions of our art where physical strength and masculine courage are specially demanded? Who can say. If so, how can the tender duties of maternity and wifehood be performed? Is the maiden to forget her beauty and the bride her ornaments in the bright period of early womanhood to spend hours in the hospital wards and dissecting rooms? We hope not. Believing most deeply and thankfully that God has made you lovely and to be loved, we trust you will cling to the duties and privileges of girlhood and womanhood, wifehood and maternity, rather than barter these away for *diplomas* and the *doctorate*. We do not here mean to say one word to discourage those self-sacrificing women who, in spite of almost overwhelming obstacles, are highly-educated physicians in Europe and America as practitioners or medical teachers of their own sex. The success of a Boivan and La Chapelle assure us that society can appreciate, and employ, and honor, and remunerate the thoroughly-educated woman, even in the medical art.

Will cold water or electricity be the sole therapeutic agents of the future?

We trow not. Will the lancet become a relic of past barbarism? We reckon not, great as is the desuetude into which this venerable instrument has fallen. Will the doses of all drugs become more and more minute, until an ounce of opium or calomel will last a druggist a life time? We think this is not probable; medical opinion seems to revolve in a circle; the thing that hath been, that shall be again; and those best read in medical history know that our medical administrations do not differ much essentially from those of Hippocrates. But the average of human life is lengthening, owing to a better hygiene and a more cautious therapeutics; even if the viability of infants and old people is diminished. Hence in years to come, a new and special interest will attach to the care of children and old persons. Fewer children are born, per family, in Europe or America to-day, and fewer reared to manhood than at the beginning of this century. Women marry later and men earlier than did our grandfathers and grandmothers.

The human race, in highly polished nations, is now sufferring the results of this artificial reversal of a natural law, whereby men formerly exceeded their wives in years, physical maturity, and worldly experience. Insanity, convulsive and neuralgic diseases are on the increase, and the respectable gout of our forefathers, with its concomitant longevity, has well nigh gone out of fashion. Except in the prize ring, man seems unable to endure physical sufferring, and chloroform and alcohol are employed to letheonize bodily and mental anguish. Tubercle and cancer are as fatal now as they were before the stethescope of Laennec and the microscope of Lebert were first employed to demonstrate their presence. Food, clothing, and fuel are more and more costly every year, and money is consequently depreciated, when we measure its value by the price of these necessary conditions of human maintenance. The gross dinners and heavy suppers of one hundred years ago are almost unknown, and anemia and loss of vitality mark whole communities of half fed denizens of our large Christian cities. In any period of military medicine were milk and brandy so largely used as in the Crimea and in our own American Hospitals within a few years? A barrel of flour or a quarter of well fatted meat, is a store house of muscular and nervous force. The market houses and grocer shops of this city are the reservoirs whence are drawn daily the physical and mental strength of this population. Call it carbon and phosphorus, as do Moleschott and chemists; call it heat, or electricity, or actheria, as do the transcendental physicists, bread is truly the staff of life; and drugs and regimen are only valuable as they enable the living machine to eat, drink, and sleep, without sufferring immediate or remote.

The medical student of the future will probably be better informed than we are of the laws of physiology and hygiene; time will lead to, and art will afford, instruments for the recognition of now unsuspected and undetected causes of disease. Better municipal regulations and improved machinery in the economic manufactures of wood, iron, cotton, silk, wool, dye and color stuffs, will render the injuries met with in civil surgical practice less frequent and less serious. Pharmacy must and will improve

with every improvement in practical chemistry. Therapeutics is being simplified from year to year. Pathology and human anatomy are even now exact sciences. Better, briefer, more lucid text books you or your successors may and will write, and the path of the medical student of the future may be freed from many obstacles which now impede your progress.

In this work, young gentlemen, you must do your part; when men have reached our ages they do little more than restate and re-express the convictions which we reached in earlier years. We cannot get rid of our past judgements and prejudices, even if we would. They cling to us like our personal habits, and we neither will nor can throw them off. Young physic, then, may play strange tricks with our philosophies and our dogmas. But they are our best and most painfully garnered experiences, and have directed us so far rightly by the bedside of sufferring men and women and children. The facts ascertained by Albinus and Boerhaave, and Hunter, and Cullen, and Jenner, and Louis, and Virchow are facts, whatever be the fate of their philosophies.

What manner of young men will constitute the classes of coming years we may then ask—and reply: Men filled with a sense of the dignity of their vocation; men willing to think and act for the good of mankind. Men who love and honor the better although the weaker sex. Men who know the value of the gently slumbering babe, the mature and vigorous father, the loving, patient wife, and the silvery headed sire. Men who value human life, human society, and all the sweet amenities which cluster around Christian men's homes. Men in whose safekeeping such interests may prudently be risked. Men who will use diligently and faithfully the better means of study and of investigation time may afford.

Then as now, the pursuit they are engaged in will add dignity to their youth and inexperience; and then as now the real student of medicine will be recognized as a useful and respectable member of an honorable and liberal fraternity. When you and we shall have become ancients, the spirit of the Ciceronian maxim will animate the student of the future! "Homines ad deos nulla re proprius accedunt quam salutem hominibus dando."

In conclusion, it is proper to remind you that on an occasion like the present we should not overlook the filial relation which this Medical Department bears to the venerable school of learning from which we derive our corporate character. I feel sure the eminent and faithful men who preside over that Ancient Seat of Polite Learning share with us a sincere pride in the present welfare and growing importance of this department in their University. My acquaintance with the past history of this medical school enables me to say that the Faculty of Georgetown College has, from the first year of your efforts up to the present hour, cordially seconded and aided you in every plan matured for the development of this medical school. It is fortunate that nearly all who were actually engaged in the origination, in 1851, of this medical school are still living and present with us here to-night. Permit me to utter for this assembly their otherwise silent congratulations upon your successful efforts. You, gentlemen, have

been peculiarly fortunate in being able to see the Institution become an acknowledged success, with annual increase in its classes; its staff of instructors enlarged from year to year; at length larger and more commodious buildings required, obtained, and conviently furnished. From year to year the apparatus for teaching becoming more and more, such as is required in a first class professional school.

The events of the past seven years, instead of crippling your success, have infused vigor into your faculty and added increased numbers, importance and interest to our classes. But the speaker must not further trespass upon your patience.

We thank you, fellow-citizens of Washington and Georgetown, for this manifestation of your interest in our welfare. To the Faculty of Georgetown College we make our grateful acknowledgements for their unvarying and polite coöperation in all our Commencement Exercises. To the ladies who have granted their presence and grace and beauty to this assembly, the speaker desires to express his full sense of the obligation they have thereby imposed.

To woman more than to our rougher sex you will be indebted, young gentlemen, for your success or failure in your offices in the sick room. To her intelligence and instinctively correct observations you will, little by little, learn to look for your most valuable aid in estimating the condition of your patients and the action of your drugs. Her faith in your skill will add to your confidence in yourselves. Her never-wearying patience and forbearance will make recovery possible and actual, when otherwise your professional learning would be futile. Her approval and gently-spoken praise, be the woman clad in the soft garments of elegant wealth or in the coarse attire of the humble poor, will be, must be, your highest and best reward. If woman value you, respect you, trust you, your success is certain. If your acquirements are shallow; if you are mere pretenders to professional skill, sagacious women will be the first to find you out, and to trumpet far and wide your incompetency. The sick, in God's arrangement of sublunary affairs, owe their lives and restoration to health to the nurse and to the doctor—a truciism you should never forget. Well said the poet of Abbottsford, from his personal experience:

> "Oh woman! in our hours of ease,
> Uncertain, coy, and hard to please,
> And variable as the shade,
> By the light, quivering aspen made;
> When pain and anguish wring the brow,
> A ministering angel thou."