AN

INTRODUCTORY LECTURE,

ON THE

NECESSITY AND VALUE

OF

PROFESSIONAL INDUSTRY:

DELIVERED IN THE CHAPEL OF

Transylvania University,

November 7th, 1823.

BY DANIEL DRAKE, M D.

Professor of Materia Medica and Medical Botany.

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Transylvania University,
November 13th, 1823.

DEAR SIR—The Medical Class, through their Committee, the undersigned, beg leave to express their high estimation of your Introductory Lecture; and, that they may enjoy the benefit of the good advice which it contains, solicit a copy of it for publication.

Very Respectfully,

JAMES W. S. FRIERSON,
WILLIS M GREEN,
JNO. R MOORE,
} *Committee;*

DANIEL DRAKE, M D.
Prof. Mat. Med. and Med. Bot.

Transylvania University,
November 14th, 1823.

GENTLEMEN—The Introductory Lecture, a copy of which the Class has solicited for publication, was hastily drawn up and intended only for the occasion on which it was delivered The selection of it from among the polished specimens of elocution with which it was associated must be ascribed to a conviction on the part of the class, that the Industry which it recommends is necessary to professional success, and no other motive than the desire to promote that object, could induce me to consent to its publication.

Affectionately, your obedient servant,

DAN. DRAKE.

Messrs. Frierson, Green and Moore.

tions, and what have been emphatically, but paradoxically, denominated false facts. Out of these the plastic hand of genius has from time to time erected its splendid frost works, which have successively melted away, before the ascending sun of science. For our systems of philosophy to be durable, they must be composed of truths; and to be noble in their aspects, those truths must be arranged according to the rules of philosophizing, which, in physics, are but another expression for the principles of sound logic. Generalizations are useful; but to incorporate error with truth, is to perpetuate the one and deteriorate the other. Let truth then be your greatest object, for, in the eloquent numbers of a poetical member of our profession—

> Truth and Good are one,
> And Beauty dwells in them, and they in her,
> With like participation.

Happily, gentlemen, the efforts necessary to practise and to improve the profession, are the same; the latter being effected by means of the former, and he who is the greater practitioner, may, *cæteris paribus*, always be the more successful reformer. I speak not of an award of greatness made by popular favour, which is frequently unmerited; nor of the business which consists in an excessive number of cases, too often em-

barrassing the practitioner, and exhausting his time and talents unprofitably for the science; I speak of a greatness resting upon a profound knowledge of the organization and functions of the living body, an accurate understanding of the causes which disturb those functions, and a minute acquaintance with the appearances which denote such disturbance; a greatness which involves an enlightened practical skill—a deep and sagacious discrimination–in the choice of means for restoring a healthy condition; a greatness which implies,and indeed results from, a commanding acquaintance with the canons of inductive philosophy, united with disciplined habits of observation, tireless industry and a conscientious sense of responsibility. *This* is the greatness to which I allude, and if there be one among you, who is dead to its attractions, let him without delay relinquish an undertaking for which the Creator has neither prepared nor destined him. To those,on the other hand, who can place before their mind's eye such a model of excellence, and feel inspired by the creations of their own imagination, I would say, do not feel discouraged at the distance which may seem to exist between your present condition and that to which you aspire: it is true that you can never reach the ideal object of your admiration, for

as you rise it will ascend before you, like a Heavenly guide, receding from the touch of mortality, but alluring and conducting you to regions of the highest dignity and eminence. You must be satisfied then with an *approximation* to that perfection, which you cannot attain; and you can only approach it by ascending. But every ascent is attended with labour and difficulty, and industry is the only lever by which it can be effected. I will consider then, in detail, the rules which should regulate the use of this important and infallible instrument of promotion.

First, to be successful, there must be method in your industry. You must apply yourselves, in the beginning, to those branches which constitute the alphabet and grammar of the profession: to the truths that are simple and obvious, and may emphatically be said to constitute its fundamental elements. From these you may proceed to the more complicated, until by a gradual and easy transition, you come at last to compass the most exalted principles of science. For want of this precaution I have known the industry of many a deserving student, apparently of no avail. Having aimed *prematurely* at a knowledge of the higher branches of the profession, he has felt the embarrassment of one who might have sought to understand the movements

of a complicated machine, without an acquaintance with the mechanical powers united in its construction. Such an one is often compelled to descend from his unmerited elevation—he is perpetually haunted by a consciousness of imperfection, and, when too late, experiences the truth of the apothegm, that the progress of the human mind *must* be from the known to the unknown.

Your application should be systematic in another respect. Nothing can retard the progress of an industrious student more than rapid transitions from one subject to another. Under the present organization of medical schools, this is unavoidable; but I do not in this lecture treat of the deportment of students during their university studies only, but their whole pupilage. It is incompatible with the laws of the human mind, that sudden changes should carry us forward. The association of ideas excited by one subject is different from that suggested by another, and when established cannot be instantly superseded. But there are students, and I am sorry to believe that the number is not small, who are accustomed at all times to desultory reading, and never establish habits of unbroken and efficient attention. They might be compared to the busy insects which roam from flower to flow-

or, tasting the sweets of all, but collecting the nectar of none. To such inconstant spirits I would say, that nothing is more indicative of feeble intellect. Patient and persevering application to a particular object, is equally the evidence of a strong mind, and the secret of its noblest achievements. Newton himself ascribed his amazing discoveries in Natural Philosophy to habits of protracted meditation.

Industry, to be efficient, must be real. The eye may wander over the pages of an author for hours, without a mental devotion of minutes. Physical and intellectual application are so different that it is possible to devote much time to the business of reading, without either enriching the memory, or strengthening the judgment. Mental attention is a prerequisite to all improvement, and without it bodily application will be inefficient and delusive.

To be successful, industry must be unremitted. It should not recur in paroxisms, for with fitful breezes the voyage is interrupted, while under the ceaseless trade-wind the vessel holds her way in constancy to the destined port. I do not insist on close confinement, for that would impair your health, and with it, the activity of your intellectual powers. But it may be safely affirmed, that if students of every class would devote

the hours of suspended study, to exercise in the open air, a much greater number might, without injury to the constitution, be employed in professional reading than is usual. What we call relaxation from books, in general produces enervation instead of strength. It is the body and not the mind that becomes fatigued and restless in these cases. But when fatigue of body is produced by the restraints and confinement of a studious life, it can afford no relief to visit the heated apartments of a neighbouring class-mate, or consume the hours of intermission, in idleness and pleasure. The true counteracting influence to the morbid effects of intense study, is active exercise in the fields and woods, where nature, with lovely aspect, can allure us from object to object, imparting vigour to the body and inspiration to the soul.

In the acquisition of medical knowledge, however, neither pupils nor physicians, should rely entirely upon reading, or even reading and observation, but seek each others society. We cannot apply ourselves too intensely to the *study* of any subject, but may read too much upon it, and therefore should diversify our modes of inquiry and contemplation. By the art of printing, in its effects the greatest of all human inventions, the modern student has been made in some de

gree an insulated and solitary being, who too often acquires without digesting, possesses without using, and dies without communicating knowledge. The great men of antiquity taught themselves, and each other by conversation; and the tissue of Peripatetic philosophy, which, for 2000 years spread like enchantment over the human mind, was woven by the disciples of Plato, in the groves of the Lycæum. In the profession of Medicine, one of the causes of the superiority of city over country students and practitioner, is the social and scientific collision of the former. The interrogating parties, literary clubs and societies of emulation, debate and deliberation, which exist in cities, open to their members new views both theoretical and practical; defecate their intellects, and preserve in them the *raciness* of character, which is so seldom retained, under a protracted course of solitary reading. For the mind to be both opulent and executive, it must be sustained by a diversified regimen.

As already intimated, I would not enjoin unceasing physical application. That upon which I insist, is mental; and this will be successful, in proportion as it is continuous. The *pupil*, who dismisses the subject of his researches with the book, that guided him, does not deserve the honorable epithet of *student*. When he is fatigued

with acquiring, he should pass to rumination, and when that which has been received is appropriated, he will be prepared to return to the fountain, in ceaseless and delightful alternation. This habit of unvaried application, in which the physical and moral powers are made, as it were, to relieve each other, is not so difficult to form as you might suppose. Youth I admit is the stage of life, when our senses are most susceptible of the impress of surrounding objects, and when we are most liable to be led astray by their seductive influence. Let the student, however, fill his senses with the appearances that augment the volume of his intellect, and the laws of his physical organization will be satisfied, while his moral destinies will be fulfilled. The first efforts to abstract himself from the giddy amusements of the multitude, who are content to begin and end their career within the vortex of pleasure, may be difficult, and even painful. When the accustomed hour of idleness or innocent folly returns, the desire to participate will recur; but if met by a palpable resolution of defiance, the second will require less effort than the first, and each succeeding trial will prove easier than the last; till with fewer perils than were encountered in reconciling his nerves to the poison of tobacco, he will conform his taste to the society

of the mighty dead—whose works remain behind them, like the trains of light which follow the meteors of the firmament. His reformation is now complete, and with astonishment and delight, he finds himself elevated from the bondage of appetite and pleasure, to that of the Muses.

The pupil should learn to apply himself to reading in the midst of the professional business and interruptions, to which the condition of his pupilage may subject him. The practitioner of medicine cannot select his hours of study. He is the servant of the public, and has come under a voluntary obligation to obey their mandates. When called on to relieve the sufferings of afflicted humanity, he must close his book and suspend his researches, however interesting. Having performed the service required by his vocation, he may resume his studies; but must submit to a second interruption, perhaps in a single hour. He is thus obliged to unite the functions of student and practitioner, and alternately to execute them without premeditation or settled order. Now to prosecute studies in the midst of the disturbing influences of professional life, requires habits of a peculiar kind; and such of you as do not establish them during your pupilage, will, like too many of your predecessors, terminate your studies when you begin your prac-

tice. Labour then, to *triumph over* the causes of interruption that will beset you daily, and not fly from them. It is the glory of medicine, that while it is a practical art, the torch of science should illuminate all its processes; and he who presumes to dispense its benefis, must be at once a man of business and a scholar.

It is important that the student should not *misapply* his industry. As I have already said, some sciences are essential, others but auxiliary, to the profession. The former are Anatomy, Institutes & Practice, Surgery, Obstetrics, Chemistry, Materia Medica & Pharmacy. Among the latter I may name *Comparative* Anatomy, *General* Physiology, Botany, Natural Philosophy, Zoology, Mineralogy and Mental Philosophy;—with the fundamental principles of which, every physician should, if practicable, be acquainted. The student, however, must vigilantly guard against the allurements that dwell in these beautiful departments of human knowledge; and which like the fascinations that overcame Telemachus, may divert him from the proper objects of pursuit. It is true that the study of these sciences may enlarge the understanding, augment the resources, and exalt the character of a physician, but to do these, they must not become the *principal* objects of his attention. They

connect his profession with the general range of moral and physical existences; and give to him in reality and in aspect, a decided superiority: at last, however, they are but the ornaments of the column of professional learning; which, without a solid pedestal and proportioned shaft, will neither satisfy the eye of correct taste, nor answer the ends for which it was erected. The most proper time for the student to turn his longing and inquisitive vision, upon the opulence of these great departments of nature, is after he has acquired the elements of the profession. When he has entered upon his duties, and *before* they have multiplied about him. Then it is, that by the habits of efficient industry, which is the object of this discourse to recommend, he will be able to trace out the relations which exist between the essential and contributory branches of his profession, and to fortify himself in the midst of a deep and extended philosophy.

Finally, the student of medicine should not only 'read by day and meditate by night,' but find time to cultivate the faculty of observation, by a well directed exercise of his senses. To a physician no quality is more important. The facts, collected at the bed side of the sick, are the premises from which he is to reason, and on the correctness of his conclusions depend in

a great degree the safety of his patient. It is of vital importance, then, that his observations should be well made, for conclusions true to nature and useful in practice, can never flow from false premises. The most distinguished physicians of every age, from Hippocrates to the existing gallaxy of European and American practitioners, have surpassed their cotemporaries in the accuracy of their observations, rather than in the depth and ingenuity of their reasonings. And it may be safely affirmed, that a faculty for patient, acute, and enlightened observation, is more important in the practice of medicine, than an excursive imagination or uncommon strength of understanding. The student, therefore, should vigilantly avail himself of all opportunities that may offer, to augment and discipline this valuable power. He should learn to exert it rapidly, and in the midst of distracting circumstances, for it is *there* that it will be required. In the progress of a disease, the changes are frequently sudden, and different appearances often succeed each other with a celerity that must defy the powers of ignorant or indolent observation. It is in such situations, and such only, that the man who has trained his senses and enriched his mind, who has added practice to theory, and experience to reading, can

be distinguished from the illiterate herd who obstruct the walks, and sometimes degrade the character, of the profession.

Gentlemen, if there be any among you who suppose, that professional success and respectability are attainable without industry, I would observe to them, that those who study the profession as a branch of liberal education may prosecute it with the leisure that is agreeable; but to the rest, whether rich or poor, I would say, you cannot make yourselves exceptions to the general rule. An opulent inheritance, will not enable a young physician to cure the sick, nor will it secure to him the confidence of the community. On the contrary, as wealth may be made to provide ampler opportunities, society will always expect, from those who inherit it, the most extended attainments; and, unless you surpass those who have struggled into professional being, through the 'carking cares of poverty' you are surpassed by them. It is one of the most beautiful features, in the noble aspect of American society, that its sympathies are invariably bestowed on the youth who grapples with adversity; and, that none are so much respected, as those who honestly emerge from obscurity to distinction.

There may be others among you, who are the

sons of medical gentlemen, and expecting to fix the attention of *their* patrons, consider it unnecessary to labour, like those who must earn business, before it can be enjoyed. It is my duty to warn them against this delusion, as it may be fatal to their hopes. The biographical archives of the profession, in the United States, furnish but few examples of sons succeeding to the practice of their fathers; for, happily, the sentiments of our people are, in general opposed to all hereditary entailments. Moreover, if the father be an inferior practitioner, he will have but little patronage, either to transfer or bequeath, if such interests could indeed form a bequest; and, if he be eminent, an ignorant son, would present a contrast, equally disgraceful to himself, and fatal to the hopes of his family. It is as difficult to sustain the renown of our ancesters, as to earn glory for ourselves.

Similar expectations may be created in others by family connections; and, I feel it right to protest against such a dependance. The influence of family, when exerted most propitiously, can extend no further, than to procure business in the first instance—to retain it, the practitioner must rely upon himself only.

There are others, but I hope none of you, gentlemen, will be found of the number who

study the arts of *popularity more* than the art of *healing*; and, divested of conscientious scruples, rest satisfied with the acquisition of business, without the ability to execute it properly. If a young physician can add the arts of popularity to profound and practical acquirements in the profession, he accomplishes what I would commend, rather than condemn. But to rely upon the former, would be both short-sighted and mischievous. Popularity and reputation are radically different. The former connects itself with manners, the latter with attainments. One lessens in efficacy, as we advance in age, the other, augmented by time, gives fulness of honour with fulness of years; and, like an amaranthine flower, blooms bright when all beside decays.

Again, there may be of your number, some, who, possessing retentive memories, consider but little application necessary. To such I would say in the unvarnished language of good will, that the memory *may* be disproportionate to the understanding; and that the former cannot successfully perform the functions of the latter, in the practice of any profession. To such as possess this structure of mind, much mental industry should be recommended. It ought to be the aim of the student to learn how to cure diseas-

es, not to answer questions in the language of his teachers. What he receives from them should be digested, and appropriated to the nourishment and growth of his intellect; not stored up as it was infused, to be afterwards given out unchanged—but this cannot be done without resolute and unwearied reflection, which is industry of the highest order.

It has, moreover, been supposed, that what is vaguely denominated genius, may be made a substitute for industry. It would require an entire lecture to enveigh sufficiently against the evil tendencies of this vulgar error. All men have the *same* faculties of mind, but they differ widely in their comparative as well as their aggregate strength, in different persons. Genius is not the name of any faculty, but of a great though indefinite degree of mental strength. Now I would ask, how can the power of acquiring and arranging ideas, be made a substitute for the ideas themselves? *They* must be excited by external occasions, and to acquire them, application is as indispensable for a genius as a dunce. The difference of time in which they would learn the same thing, it is true, may be very great, but *when objects commensurate with their respective portions of intellect*

are assigned to them, equal diligence becomes necessary. To him, then, who studies closest, the palm of merit is due; for rewards should not be connected with capacity, which is of Heaven, but with diligence, which depends on ourselves. It may be said, therefore, to be disgraceful for him, on whom the Creator has bestowed a great portion of intellectual power, to be equalled by one who has been sparingly endowed. I would ask the youth who is flushed with the consciousness of superior abilities, for what purpose he supposes they were granted? Why the God of nature has vouchsafed to him five talents, while he gave his humble classmate but one? A little reflection, if he possess the superiority of mind which he claims, will enable him to perceive, that results are required from him, equal in their importance, to the dimensions and power of his greater intellect; and a little observation will disclose to him a multitude of problems, corresponding in their dignity and difficulty, with the exalted endowments of which he vaunts. It is for the solution of these problems, unfortunately so numerous in our profession, that *he* was created. *His* should be a career of unvaried elevation, and not to leave the broad and beaten track by which the throng of ordinary mortals

descend into oblivion, is to pursue an ignobler course, than the meanest of that throng.

The young man of genius should recollect, moreover, that fellow students of duller intellect, are as likely to imitate his faults as his perfections, and having seen as they supposed, that indolence accompanies genius, they will fear to be industrious, lest the absence of genius should be imputed to them. So they will relax in their endeavours; while the object of their imitation, satisfied with a bare equality of attainment with those below him, and finding less vigilance necessary, will become more licentious in his idleness. The two characters will thus reciprocally act upon and deteriorate each other, until the exalted intellect which might have blessed society, becomes its curse. To select objects corresponding to our abilities, and prosecute them to final success, is but conforming to the ends for which we were created.

Gentlemen, I have dwelt so long on the necessity for professional industry, that but a single moment remains to speak of its rewards. These consist of the various pleasures and profits of success. The most humble of them is an immunity from the chagrin of disappointed hopes—a negative condition it is true, but to a mind of

ardent aspirations, capable of affording actual pleasure. Then follow a train of positive gratifications and benefits, embracing all that is delightful to good taste; responsive to the desire for knowledge; gratifying to ambition; available to avarice, or satiating to the love of glory.

If a provident temper of mind make you desirous of guarding against the gloomy insignificance—the sad and solitary nothingness of an ignorant old age; you must accomplish it, by industry in youth; and such industry is peculiarly appropriate to this object, since in our declining years, the knowledge acquired in early life, is almost all that remains with us. The first inscriptions on the tablet of the mind are the last to be effaced. What a resistless motive for early diligence is suggested by this important law of human nature; and from its frequent violation, how few, like Nestor in the Iliad, become in old age the living oracles of wisdom to the rising generation.

Should you carry within your breast a Samaritan heart, and find the act of doing good to others a greater joy than comes to them, by industry you may be said to acquire a foretaste of the happiness of the blessed; for, Heaven itself, will look upon and love you. And,

on the other hand, should you place your affections on the things of this world—within certain limits, a necessary and useful attachment—should you love money for the independence and power of which it is the parent, or the comforts and luxuries it may purchase—you may realise the golden dreams of Alchymy, for diligence is the true Philosopher's Stone.

If a love of knowledge should prove to be your ruling passion, do not fear that much industry will either exhaust all new objects of admiration, or blunt your faculty of enjoyment. The former defies the grasp of human intellect, and the latter cannot be cloyed. Nor need you stray beyond the empire of organised beings; but should indeed confine yourselves within its limits, ranging with freedom, but still returning to man, who like the sun in the midst of the solar system, is the central orb of living nature.

Should you, however, delight in the *gloriæ certamen*—in the struggle of ambition—and pursue fame as an ultimate object, renown with its long train of brilliant accompaniments, will be yours: or if nature has given you a relish for praise, the sounds of popular applause, and the sweeter accents of gratitude, breathed forth by those whom you have rescued from impending death, will fall like soft music on your ear.

Finally, can woman, at whose very name I see you brighten under the fatigues of a long discourse; can she, whose acute and complicated woes should awaken all your sympathies, while her confiding and patient dispositions will command your respect—can the approbation of woman touch your heart?—*deserve it;* and under none of the troubles of future life, till death itself shall come, will that heart sink within you.

My young friends, be not discouraged that I have disclosed to your view the difficulties which the candidate for the honours and enjoyments, of the profession must encounter, for I have done it to stimulate you in the race. Enterprise delights not in the path that is unembarrassed, courage is animated by danger, and genius disdains the achievement that involves no peril—the road to glory is not devoid of thorns, but they are the thorns which surround the rose.