Brown A. H.
DUTIES OF THE MEDICAL STUDENT.

AN ADDRESS

DELIVERED BEFORE THE

RUSH MEDICAL SOCIETY,

CONNECTED WITH THE

WILLOUGHBY MEDICAL COLLEGE,

DEC. 27, 1845.

BY ABNER H. BROWN, M. D.,

PROFESSOR OF CHEMISTRY IN SAID COLLEGE

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WILLOUGHBY UNIVERSITY, Dec. 29th, 1845.

PROF. A. H. BROWN:

SIR: At a meeting of the RUSH MEDICAL SOCIETY, held this day, it was unanimously

Resolved, That a Committee, consisting of nine, be appointed to solicit for publication a copy of your Address, delivered before the Society on the 27th inst.

We, therefore, as representatives of the Rush Medical Society, respectfully present the above resolution, with an expression of our earnest desire, that you may deem it proper to comply with this solicitation.

Respectfully yours.

GEO. L. McCOOK, E. W. TUCKER, S. B. HUNT, D. G. CLARK, W. H. STANLEY, J. F. HEATON, H. H. HINMAN, F. H. PRATT, J. NICHOLS,

WILLOUGHBY, LAKE Co., O., Dec. 29th, 1845.

GENTLEMEN:

I hereby comply with the request contained in your note of this date.

Truly yours,

ABNER H. BROWN.

Messrs. GEO. L. McCook, E. W. Tucker, and others,

Committee of the R. M. Society.

ADDRESS.

The position which the medical student occupies at the present day is an important and interesting one. The character of the studies in which he is engaged, and the weighty responsibilities which he is preparing to assume, can hardly fail of awakening in his mind many an anxious thought. Standing on the threshold of a profession most intimately connected with the dearest interests of man, it would be strange indeed, if the thought of his duties, present and prospective, did not sometimes press upon him with an overpowering weight. To a brief consideration of some of these duties I ask your attention on the present occasion.

The first duty which I would seek to impress upon the mind of the medical student is, to acquire correct

ideas of the science of Medicine.

I slander no man, no body of men, — I utter no untruth, when I affirm that the great majority of those who enter the profession have inadequate and erroneous views of the principles and object of medical science. An intelligent physician of half-a-dozen years' practice can hardly be found, who will not confess that his opinions in regard to his profession have radically changed since the period of his pupilage. The young physician, diploma in hand, goes forth with Quixotic

zeal to do battle with the great enemy of man. He thinks himself armed at every point; he pronounces his diagnosis with a confident air; he deals out his pills and powders with the most unfaltering faith in their efficacy. But, behold, the disease does not disappear; it assumes new phases, and becomes more and more complicated; the medicines which are administered are inert, or perplex the mind of the physician by giving rise to unexpected and anomalous symptoms. The young practitioner is filled with amazement; he is astonished to find that all his boasted and hard-acquired learning fails him in the hour of his severest trial.

The public, also, have incorrect views of Medicine, and these views are very nearly of the same character as those which prevail too extensively in the profession. They are the relics of the past; they are the heirlooms of superstition, which time and civilization, in their onward progress, have failed to destroy. Too much is expected of the physician. Instead of making him the servant of nature, the public look upon him as its master and guide. Unless he is able at a moment's warning to explain the varied phenomena of disease, and to arrest, or change, its course, he is forthwith cast out as an ignorant pretender. That mighty, but formless, thoughtless, conscienceless divinity, whom we dignify by the name of "the people," pronounces its decisions upon medical doctrines with oracular authority, though as ignorant as it can well be of the true principles of the science which it presumes to judge.

The medical student should be careful that these erroneous notions do not obtain a permanent abiding place in his own mind. How shall he guard himself against them? From what points shall he survey the science of Medicine, that his views may be distinct and

accurate? An answer to these questions will teach us, if I mistake not, some useful, but neglected, lessons.

Let him, in the first place, carefully study the history of Medicine. Let him commence when disease first laid its iron grasp upon man, and trace down, through subsequent ages, the manifold forms which this unwelcome visitant has assumed, and the various means which have been employed to overthrow his fearful rule. The history of Medicine is interesting to the student, in two respects; it inspires him with a proper appreciation of the value of his profession, and reveals to him the numberless revolutions which have taken place in medical doctrines and modes of practice.

Originated in the infancy of the world and cherished as a divine art by many generations, Medicine has always received the respectful consideration of men. Error and superstition and villany have indeed disgraced and deformed it, but what is there which has been free from their polluting touch? Even in its darkest days, it has not been entirely unworthy of its exalted purpose. Dishonored and trampled upon it has been, but even in its error and disgrace, it has borne some of the lineaments of its noble origin. Many of the gloomiest pages of the world's eventful history are illuminated by the self-denying labors and earnest zeal of humble and faithful physicians. Amidst all the changes in states and religions, far back when Egypt was building the pyramids, while the glorious Greek was filling the nations with the fame of his learning and power, while Rome was mistress of the world, while the Goth was knocking at the gates of the eternal city, while the religion of the Cross was crowding before it the thousand idols of the heathen, through all the long night which followed the extinction of the ancient civilization, everywhere and always, has the physician been found, humble and despised it may be, but still ready to minister alike to the sufferings of the beggar and the noble. The student will find, scattered all along through medical history, imperishable monuments of the learning and skill and perseverance of physicians. He will find a splendid array of illustrious names, which would adorn and dignify any science. He will find the record of the virtues and labors and sufferings of many truly great men who have given to medical pursuits the vigor of youth and the maturity of manhood. Can he be conversant with these things, and not feel that he has entered upon a noble work?

But the history of Medicine teaches another and less flattering, though by no means an unimportant, lesson. It informs the student that, from the earliest ages to the present time, there has been a continued succession of changes in medical practice and opinions. In fact a large portion of it consists in an exposition of the different systems which have prevailed among medical men. There seems to be in man an innate love of speculation and hypothesis; and nowhere has this feeling manifested itself more fully than in Medicine. There are, perhaps, peculiar reasons why this should be the case. The profound mystery that envelopes all those phenomena, which, taken together, we call life, the evervarying influence of climate and occupation and habits of living, afford more room for speculation and theory, than the demonstrations of the mathematician, or the experiments of the chemist.

Now the medical student cannot have a correct idea of the science which he studies, without being acquainted with these various and often contradictory systems. A knowledge of them, such a knowledge as he may acquire by a few weeks of patient reading, is, I say not important, but essential, to a proper appreciation of the many similar systems which are thrust upon us, in the present age, from every quarter. He will learn from the past not to place his confidence and hopes in any system of medical doctrines, however plausible it may seem, or however well supported it may be by great names or brilliant talents. He will learn that the science of Medicine consists not in dogmas, but in observations; not in principles, but in facts.

Another subject which I would commend to the attention of the student, if he wishes to obtain a proper view of medical science, is Pathology. This is a modern science; its origin dates back only a few years; but the influence which it has already exerted upon medical opinions and practice, is of the most cheering character. It cannot be too closely studied - it can hardly be too highly valued. Have the great body of physicians in our country rightly appreciated it? Have they themselves given to it the attention it deserves, and have they sought to impress upon the minds of their students its value and importance? I know of nothing which more clearly marks the distinction between the educated and scientific physician, and the mere routine practitioner, than the opinion which they respectively entertain of the subject now under consideration. The one visits his patients, perhaps, with scrupulous punctuality, and prescribes for their maladies according to the best of his ability. If perchance any of them die, and such accidents will sometimes happen, his interest in them ceases, and he is glad when he hears that they have been shoved into their graves. The other, having carefully watched the progress of the disease till its termination in death, does not then withdraw his attention.

but with much painstaking examines, as accurately and minutely as circumstances will allow, the alterations which the various organs and tissues may have undergone. Which of these men, suppose you, would make the best physician?

Do you ask what Pathology has done? It has classified and arranged the numerous diseases known as malignant growths. Scirrhus, Encephaloid and Colloid are found to include them all, and the first two a very large proportion of them. It has defined and fixed the character of Inflammation, its signs, its course, its terminations. It has established the main facts in the history of that particular form of inflammation known as Pneumonia. It has marked with surprising skill and accuracy the signs, course and lesions of Typhoid Fever. Need I speak of what it has done in developing the history of Tubercle? Look into Louis' great work on Phthisis. To the uninitiated it appears to be an enormous mass of unarranged and useless facts. But study it closely. He tells you that in three hundred and fifty eight cases in which there was tubercle in some part of the system, it was found in the lungs in all except one. In one-third of the cases it existed in the small intestine, in one-ninth, in the large intestine, and so on. He has demonstrated, so far as the number of cases examined can demonstrate, that it is only in the lungs that tubercles exist alone, and whenever they are found in any other organ, they exist in the lungs also. These are mere specimens of some of the results of Louis' observations; are they of no interest or importance to the medical student? I have called the work on Phthisis a great one. I ought to do more. Medical literature up to the time of its publication does not contain its equal. In the mode of investigation which it introduced, in the

facts which it embodies, in its freedom from speculation, in the manly simplicity of its details, it will accomplish more for medical science than any work which preceded it.

Diagnosis is another of those weapons with whose use the student of medicine should be familiar. It is too much neglected. We prescribe for diseases by name; we prescribe for symptoms; we prescribe for we know not what. Sometimes, from the obscurity of the complaint, this is a necessary evil, but tolerable only so far as it is necessary. Many very respectable men, I will not call them excellent physicians, have a convenient way of grouping together various symptoms and calling them "the liver complaint" or "the lung complaint," and I know of one physician of vast pretensions, but small calibre, who ascribes all symptoms which he cannot otherwise explain to "spinal irritation." Now I am fully aware of the inducements which the physician has to attempt to explain every sign and symptom that may arise. Many patients will not be satisfied until they know the name of their complaint. One name will satisfy them about as well as another. It may be Chinese or Hottentot, it is all the same to them; they can pronounce the name of the disease which afflicts them, and they bless their stars for sending them a doctor who knows so much. If you are anxious to acquire a distinction of this sort, follow the course here indicated and you will not fail. But if you seek for an honorable place among your brethren, if you study disease to discover the means of removing, or mitigating it, then be not content with any vague notions of Diagnosis.

Whenever the physician is called to see a patient, it should be his first and great endeavor to ascertain the precise nature and locality of the disease. It is not

enough to say that the right lung is inflamed: what part of the lung is involved? what progress has the inflammation made? It is not enough to say that the patient is "feverish"; what is the cause of this constitutional disturbance? Has inflammation lighted up its fires in any particular organ, or is it the result of an agent affecting the entire system? These are the most obvious inquiries which suggest themselves; others of greater importance and difficulty arise in almost every case. Strive to be able to answer these questions. Be not forced to hide your ignorance by using general terms, the most frequent resort of pretenders, or by employing words which neither you, nor your patients comprehend. By the careful study of recorded cases, by close attention to your public instructors, by faithful personal observation, make yourselves masters of the science and the art of distinguishing between different diseases, and of assigning to each its proper signs and locality. In a word, study the principles of Diagnosis.

Another important branch of medical science is Therapeutics, or the application of remedial agents to the cure or relief of disease. All the other departments of Medicine are indeed but preparatory to this. Anatomy, Physiology, Chemistry, Materia Medica, Pathology what are they to the physician, except so far as they are subsidiary to Therapeutics? Given, a case of disease: what will cure it, if it is curable? what will mitigate it, if incurable? This is the problem which the physician is required to solve every time he stands by the bedside of the sick; from his first professional visit to his last, these questions are ever recurring to him. All the labors of the dissecting-room and the laboratory, all the study of remedies and pathological anatomy, all observation of disease, are only preliminary to Therapeutics.

But important as the study of Therapeutics is, perhaps there is no branch of Medicine of which students have more crude and vague ideas; certainly there is none concerning which the public mind is more unenlightened. This ignorance is the fruitful source of medical delusion and imposture. It feeds with the choicest fruits of the land the great army of arrogant and impudent pretenders who stuff the columns of the newspapers with their deceptive advertisements, and who, not content with making the types lie for them, press into their miserable service the most miserable of wood-cuts. It clothes in purple and fine linen those who, banishing all self-respect and decency, sound a trumpet before them and exclaim, "Ho, ye that are sick, come unto us; we alone have pukes and purges to cure you; ho, ye consumptives and rheumatics, come unto us."

I believe the profession itself is mainly responsible for the false notions which have so extensively obtained. In fact, it is a question by no means readily answered, whether the views which generally prevail among medical men are not as incorrect and indistinct as those entertained by the people. Take up any of the ordinary works on Therapeutics, or Materia Medica: how various and contradictory are the opinions given in regard to the value and action of remedial agents. How rapidly have the hundreds of "specifics," falsely so called, succeeded each other. How little is actually known of the modus operandi of the most common articles. A new fact in Therapeutics, a fact well defined and well established, is a curiosity.

I hardly dare give utterance to the opinions which I am compelled to entertain, lest I should be looked upon as a medical heretic. But what good can come from endeavoring to conceal from ourselves, or from others,

the real state of therapeutical knowledge? The first step towards wisdom, is a confession of our ignorance; the first element of knowledge, is a desire to obtain it.

The ponderous volumes of Pereira are full of varied learning, but nothing could be more unsatisfactory than the details there given of the "uses" of the different articles described. The mind is bewildered by their number and diversified application; it is confused by the conflicting testimony of different authorities. A work of rare merit it must be confessed to be, but one describing a thousandth part of the articles there enumerated, might make a more useful book for the student. But there seems to be no end to the introduction of remedial agents; their number is legion. Every day some new article is proposed as a specific for some form of disease, and forthwith a book-maker collects the scattered rumors of its efficacy, and enlightens the world by a treatise on "New Remedies." It is curious to observe how many of these new remedies belong to the class of "alteratives." A weed or mineral when taken into the stomach is found to produce certain effects on the human system; these effects have been ill observed and ill defined, and are unimportant; but it is forthwith added to the Materia Medica, and installed, with all due solemnities, in that great limbo of therapeutical ignorance, "the alteratives." We want a Hercules to go up and down in the earth and smite, with his knotty club, those greedy monsters which, under the name of medicines, are eating away the heart's core of a million invalids. We want a Hercules to turn aside the waters of a new Alpheus and purge those Augean stables, the apothecary shops.

The fact that many diseases are self-limited has an important bearing upon Therapeutics. It is now well

established that, in cases of this sort, all medication, except that which is merely palliative, is useless, nay more, is injurious. You cannot break up the disease; you cannot essentially modify it; it will run its course, severely or mildly, according to circumstances mostly beyond your control. Is your attention to your patient therefore unimportant? Far from it. Watch him closely; a crisis may occur when a single well-selected draught may save his life. But do not stuff his already deranged and debilitated system with the nauseous and irritating drugs which you sometimes carry in your saddle-bags, or place, as inviting signals, in your officewindows. Keep them rather as specimens of those "villanous compounds," which have been contrived to destroy life, under the guise of saving it. During the angry controversy between the Nominalists and Realists, certain offensive books were ordered to be chained in the libraries. It were well, if, by a similar decree. nineteen-twentieths of the Materia Medica were locked up in the cabinets of the curious.

Allow me to make one more remark in relation to this subject of Therapeutics, a subject acknowledged, on all hands, to be of primary importance. The remark is this, the therapeutical use of an article can be ascertained in only one way, and that is by experiment. No a priori reasoning, no knowledge of the chemical constitution of a body, no insight into disease and its relations, can afford sufficient authority for affirming that an article will produce this or that effect. It is only by experience, by an extensive and accurate experience, that the action of remedial agents can be ascertained. It is said of Nathan Smith, a man as remarkable for his sound common sense as for his great professional attainments, that, in giving an account of his cases, he

was accustomed to say, after taking the medicine the patient was so and so, not, as we do now-a-days, the medicine produced this or that effect, so uncertain was he whether an observed result ought to be ascribed to the article administered, or to the natural processes going on in the system. "Therapeutics," says a late medical writer,* "rests wholly upon experience. It is, absolutely and exclusively, an empirical art. but one philosophical, or intelligible, indication; and that is, to remove disease, to mitigate its severity, or to abridge its duration; and this indication never grows out of any a priori reasoning, but reposes solely upon the basis of experience." Be not startled by the word empirical. It has been greatly abused and misapplied. The offensive meaning which is usually attached to it is a false one. The whole of medical science, from its simplest fact to the most comprehensive generalization, is empirical, not in the common meaning of the word, but in its original, legitimate, philosopical signification.

The second duty which I would call upon the student faithfully to perform, is, to discard at once and forever all medical theories and systems. This is intimately connected with the topic already discussed, but its importance and extent will justify a separate consideration.

The influence of medical systems upon the progress of our science has been disastrous in the extreme. By their means the truth has been perverted, facts have been tortured to support an opinion they did not teach, and men have come to regard Medicine with suspicion, or contempt, so disgusted are they with the silly whims

^{*}ELISHA BARTLETT, M. D., in "An Essay on the Philosophy of Medical Science." I cannot let the opportunity here afforded me pass without commending this excellent book to the attention of those into whose hands my address may happen to fall. Dr. B.'s work has been assailed with considerable virulence in certain quarters, but the general correctness of its doctrines cannot be successfully disputed. Its style is elegant and perspicuous, its arrangement is clear, its positions are impregnable.

and baseless fictions which half make up the literature of the profession.

It is not difficult to account for the number and variety of the systems and theories which have been in vogue in different ages of the world. Men are fond of a clear and complete exposition of any given class of phenomena. Here is a mass of facts, long observed and familiar. They are all more or less intimately connected with one subject, and that subject is of universal interest. It is the most natural thing in the world to inquire, whether there be not some common bond which links them all together? Is there not some general law which regulates them, and which may be deduced from them? The curious and thinking man, in pondering upon these questions, fancies he perceives that this heterogeneous mass of facts at length begins to have life and motion. As in the vision of the prophet the dry bones assumed order and comeliness, so these apparently isolated facts take the form of a beautiful and imposing system. Thenceforward every new fact that comes under his notice, he places as a new stone in this fair edifice. If he meet with any which do not exactly suit his purpose, he clips off a corner here, or hides an unsightly deformity there, till it is fitted to add strength and beauty to the general structure. All his hopes and affections cluster around it. He stands beneath its shadow and, with childlike fondness, admires its solid foundation, its comely proportions and its splendid workmanship. He imagines it will remain, through all coming time, a monument of his learning and genius. But, behold, while he is yet gazing upon the majestic fabric, a new speculator arises and, with a few welldirected blows, levels the huge pile with the ground, and erects upon its ruins another and, as he supposes, a more enduring edifice. But this, too, is soon overthrown and gives place to still another. And so the work goes on, generation after generation.

But speculation has not confined its labors to the construction of comprehensive systems of medical doctrines. In comparatively few instances has it endeavored to establish a complete theory of Medicine, a theory which should embrace and explain all the phenomena of disease. In most cases particular branches of the science, or special classes of disorders, or individual diseases, have been the subjects upon which it has delighted to display its powers. Fever, inflammation, scrofula, tubercle, the action of remedial agents, every thing in its turn, has passed under its plastic hand. The plainest fact, as well as the most obscure and complicated malady, has been laid upon the Procrustean bed of some bold speculator. There is not a corner of practical medicine which the theorizer has not sought out and appropriated.

Now I contend that medical systems are false and injurious; false in their pretended principles, injurious in their effect upon practice. I include them all; Broussiasism, Rushism, Tullyism, Homeopathy, Thomsonian, Hydropathy, all are false and wrong. As systems, as analyses of facts and phenomena, they are imperfect, partial, faulty, unsatisfactory. They all contain much truth; they all have for their foundation some wellascertained facts and admitted principles; but as expositions of causes and effects, they are illogical and incomplete. And why? Because they fail to accomplish the object for which they were intended; because in their best form they only shift the difficulties of the science from one spot to another; because they do not explain all the facts involved; because they are unnecessary.

As an example of medical systems, look at that which passes among us under the name of Homeopathy.

Now there are many excellent things in this system. It is certainly far less objectionable than many which make, I can hardly say, greater pretensions, but, without doubt, greater show. For if, in general, it does no absolute good, it at least has the merit of not overloading the human system with drugs. Its great master and all his leading disciples everywhere insist in strong terms upon the importance of a proper regimen for the sick. And not the least among its recommendations are its infinitesimal doses, which have been so much derided. If many who laugh at its minute pills and its millionth dilutions, would use the same caution in giving medicines, they would do better service to those whom they are called upon to treat. It is not in the smallness of its doses, nor the extent of its dilutions, in which it is most obviously exposed to objection. These might almost be regarded as it excellences, rather than its defects. The principles of Homoopathy are no principles; its facts are false facts. Take its fundamental therapeutical law, that "Like cures like." It is plain that this law can be established by no a priori reasoning; experiment, and that alone, is the only tribunal. Bring it therefore to the bar of an impartial and accurate observation.

An appeal is made to facts. But the facts employed for the demonstration of a law of this importance should be free from all objection. To render them valid, three things are necessary. First, an accurate diagnosis; the character of the disease must be fully and unequivocally made out. Second, it must be settled beyond all reasonable doubt that the medicine employed will produce the disease, or, to speak more in conformity with the theory, will produce a series of symptoms like those

which result from and represent the disease. Third, it must be satisfactorily shown that this remedial agent actually *cured* the disease.

Apply these rules to the facts usually adduced in support of Homeopathy. None which have not been guarded by these three conditions ought to be, can be, admitted. Where, then, are the facts, the large number of facts, necessary to establish a medical system? You search the records of Homeopathy in vain for them. The ill-described and questionable cases which bristle in such imposing array on the pages of the Organon, are as inconclusive and unsatisfactory, as any thing can well be. Diseases have not been distinguished by a careful and trustworthy diagnosis; this is the first element of a sound homœopathic fact. The action of medicines in producing symptoms like those of the disease has not been thoroughly studied; this is the second element. It has not been proved that such medicines will cure; this is the third element. Test the facts of Homeopathy by the same rigid rules which you apply to other important medical facts, and they will vanish from your grasp like the snow-flakes of the first fall of autumn. I do not say that they are all wanting in the three particulars to which I have alluded, but I affirm, with great confidence, that those which have been collected by a scrupulous observation are not sufficient to warrant our belief in the wild assumptions of this fashionable delusion. An intelligent jury would not give damages to the amount of a farthing upon testimony so defective.

As a system, therefore — I say nothing of the diet and Hygeianic treatment which it enjoins — but as a system of medical philosophy, Homeopathy is deficient in facts and unworthy of confidence. And in this respect it is not singular; I have alluded to it merely as

a specimen of all the systems and theories which have arisen, in various ages of the world, both in and out of the profession. The time may come — no one can say it never will - when a theory of the vital powers and the action of agents upon them, shall be propounded, . which shall embrace and explain all the facts and phenomena of disease and cure, which shall solve the great problem that has perplexed so many generations and been the cause of so much alienation and strife. But in whatever reveries of this sort we may occasionally indulge, a serious examination of medical history must convince us that the period has not yet arrived for the introduction of such a system. And just as surely as time shall continue, will the different theories and systems which are now in vogue, follow to oblivion the countless throng of their predecessors. They are all alike the offspring of a false philosophy, and an imperfect observation, and all alike shall they pass away from the memory of man, some with greater, and some with less rapidity. The history of the medical theories of the past will be the history of those of the future. Some, originating in the wards of a hospital or the cottage of the rustic, have strutted their little hour upon the stage, and been forgotten in the lifetime of their promulgators. Others have been more widely embraced, enjoyed a longer existence, and exerted a greater influence upon the world. But one doom awaits them all. Fortunate and wise is he who stakes nothing upon their continuance.

Will it be said that the doctrines and modes of practice inculcated by regular physicians, in their books and schools, constitute of themselves a medical system? That there are individual physicians and teachers who have favorite theories, cannot be denied, but that the

profession as a whole embraces any exclusive system, is not true. The masters of medical science, both in this country and in Europe, repudiate the idea that it is possible to reduce, to order and harmony, the complicated and obscure phenomena of disease and cure. They do not entirely despair of its being done at some future day, and therefore they have set themselves about preparing the way for its ultimate accomplishment, by the only means which a correct philosophy and an enlightened experience can sanction, a rigorous and patient observation of facts.

The medical student ought, therefore, as it seems to me, to be constantly on his guard lest he become an interested partisan of a system, instead of a faithful observer of facts, lest he himself become the author of a theory, instead of a minister of nature. Without any preconceived system of his own, or of any other man, to establish, let him enter upon the responsible duties of his profession, in the confident assurance that, by study and watching, the difficult will become easy, and the obscure, plain. Let him leave the construction of splendid hypotheses and comprehensive systems to those who delight to revel in the muddy mysticism of philosophy, and who, notwithstanding their varied erudition, have not learned the difference between a fact and a fiction.

Let him firmly, but kindly, resist the encroachments of a speculative spirit among his professional brethren. As for the multitude of impudent pretenders who throng the land, they may as well be left to themselves. The day has gone by, if it ever existed, when legal enactments were of any avail. An open field and fair play are better arguments with such fellows than fines and imprisonments. Let lobelia, and the wet sheet, and the

minute globule, grapple with myriad-formed disease; let them endeavor to drive Death from his strongholds; let them try the virtue of their weapons with Consumption and Cancer and Rheumatism. They will fail as all their prototypes have done and will leave the field in defeat. Let him, whose success depends not upon the truth of a system, hasten their downfall by a faithful and earnest improvement of the trust committed to his care. Let him show by his own example and life, that Science honors her children, by teaching them to respect themselves.

Another duty which is incumbent upon the medical student, is, to improve the opportunities, which his position affords him, of making constant acquisitions in useful knowledge.

I need not say a word to impress upon your minds the importance of a thorough acquaintance with the different branches of Medicine. It is too obvious to require comment, that he who is to deal with the delicate organization of the human system should be familiar with the form and functions of its various parts. The numerous tissues, the vast network of artery and vein and nerve, the wonderful mechanism and the almost intellectual power of the stomach and the heart, the minute texture of the lungs, the complicated structure and divine functions of the brain, these must be the objects of the student's careful and long-continued study. The means of distinguishing one malady from another, the pathological conditions connected with each particticular disease and the agents by which its course and termination may be modified, ought to occupy a large portion of his time. Their study will not, of course, be confined to the period of his pupilage; it will extend through his whole professional life.

But while Medicine has peculiar studies which are essential to its proper cultivation, and which should receive more especially the attention of the student, it is also intimately associated with all the departments of learning. This, as it seems to me, is one of the most attractive features in our profession. Some there are, who appear to have no other idea of Medicine than giving physic and pocketing the fee. He, who is most adroit and successful in these accomplishments is, in their estimation, the best physician.

How contracted is such a view! How meagre and mean must be the intellectual resources of the man who entertains such opinions! How dark and forbidding is the mind where such thoughts can find a dwellingplace! The faithful physician ought, nay, he is bound, to cultivate every study which will contribute to the cure or relief of disease. The duties which he has voluntarily taken upon himself demand of him a proper improvement of all the means which he can bring to bear upon his profession. And that man will, in the final result, be most useful and most successful, who brings to his work the best furnished mind. But if this were not the case; if the indolent and undisciplined gained the prize as often as the industrious and well trained, it would still be true that the thoughtful and studious man has infinitely the advantage. Is it a thing of small import to be able to interrogate Nature as to her profoundest mysteries? Is it nothing to you that you can meet the great Architect of the universe in the laboratory and the dissecting room? Is it nothing that you can inspect His handiwork in the glorious sky above your heads, or in the solid earth beneath your feet, or in the varied forms of life and beauty which are scattered all around you? It is a great thing to live; and

he who has no higher purpose than to pass with ease and decency through the labors of each day, has hardly caught a glimpse of the wide field of truth which stretches out farther than the eye or the thought can reach. We stand on the confines of this limitless expanse, and he who loiters amidst the murky fogs of a thoughtless and sensual life, shall never enter in and enjoy the pleasures of the promised land. We are told that there are animalcules, possessing all the organs and functions necessary for a happy existence, so small that the bulk of a thousand million of them will not exceed the size of a grain of sand. It is also said that stars have been brought to view, by the telescope, of such amazing distance from us, that light, which travels at the rate of twelve millions of miles in a minute, would require sixteen hundred and forty years, to pass through this inconceivable space. All this interval is crowded with objects of surpassing wonder. In the laboratory of the chemist, in the observatory of the astronomer, in the dissecting-room of the anatomist, in the cabinet of the geologist, in the museum of the naturalist, everywhere and always, are these objects thrust upon our attention; we have only to open our eyes, and the wonders of the universe greet our vision.

Tell me not that these are romantic dreams of the closet; tell me not that the pressing cares of business and the tumults of an active life are inconsistent with intellectual progress. I can point you to a thousand instances in which the greatest intellectual vigor and activity have coexisted with an extensive and laborious business. Many there are in our own profession who, under the pressure of accumulated cares, find time for the severe studies of science, or the elegant pursuits of literature. It is only a will to resolve and a resolution to do, that are wanting.

Gentlemen, learn to appreciate your duties — learn to perform them. They will call you to labor and to self-denial. Your exploits will not be seen by the world. In the privacy of the domestic circle and the silence of the sick-chamber, you will achieve your greatest triumphs. Oftentimes, even those whom your judgment and skill may have saved from the grave, will be ignorant of the true nature of the services which have been done for them. But be content; let the consciousness of duty performed, of good accomplished, be your reward. The eye of God has seen you; be satisfied.

Thus discharging your duties, shall life wear pleasantly away; thus discharging your duties, shall you receive the grateful acknowledgments of many who will experience the benefit of your services; and thus shall you, side by side with those whose burnished armor bespeaks a long and active service, do your part in protecting the glorious citadel thus described by a poet of our own profession, the brilliancy of whose literary talents is only equalled by the soundness of his medical opinions:

"See where aloft its hoary forehead rears,
The towering pride of twice a thousand years!
Far, far below the vast incumbent pile,
Sleeps the broad rock from Art's Ægean isle;
Its massive courses, circling as they rise,
Swell from the waves, and mingle with the skies;
There every quarry lends its marble spoil,
And clustering ages blend their common toil;
The Greek, the Roman, reared its mighty walls;
The silent Arab arched its mystic halls;
In that fair niche, by countless billows laved,
Trace the deep lines that Sydenham engraved;
On yon broad front, that breasts the changing swell,
Mark where the ponderous sledge of Hunter fell;
By that square buttress, look, where Louis stands,
The stone yet warm from his uplifted hands."

O. W. HOLMES.