AN

INTRODUCTORY LECTURE

DELIVERED

BEFORE THE STUDENTS

OF THE

Albany Medical College,

SEPTEMBER 6th, 1853.

BY HOWARD TOWNSEND, A.M., M.D.,
PROF. OF OBSTETRICS IN ALB. MED. COLL.

PUBLISHED BY THE STUDENTS.

ALBANY:
J. MUNSELL, 78 STATE STREET.
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CORRESPONDENCE.

Prof. Howard Townsend,

Sir:—At a meeting of the class of the Albany Medical College, held Sept. 8th, we were appointed a committee to request of you for publication a copy of your introductory address delivered at the opening of the present term.

Hoping you will comply, we remain,

Yours respectfully,

S. C. Webb, Chairman.

F. E. Martindale, Secretary.

F. E. Martindale,
Matthew H. Burton,
Levi P. Wagner,
Chas. H. Allen,
E. T. Henderson.

GENTLEMEN OF THE COMMITTEE:

Accompanying this I send you the introductory address which the class has done me the honor to request for publication. I deliver it into your hands, only regretting that it is not more worthy of the compliment bestowed.

Your obedient servant,

Howard Townsend.

Albany, Monday, Sept. 12th, 1853.

LECTURE.

It is a matter of no little interest to one just entering upon the studies of our common profession, to determine in his own mind, at this the outset of his medical career, the position which medicine holds, and the rank to which it is entitled amongst the sciences.

The mere superficial observer, regarding only the numerous *isms* of the day, and attaching to them an importance far beyond their merit, might most easily, and quite naturally too, be induced to suppose, that medicine could no longer lay claim to the dignity of a science, and that even the tendency once evinced in favor of establishing its position as such had been arrested.

But the conclusions to which one will arrive who will view the subject with care, in all its important bearings, regarding it judiciously and philosophically, and with a mind free from the bias of prejudice, will be far different, and the opinions which he will form, will be more favorably disposed toward the science, and by no means leniently inclined toward its opposite condition, which may most fitly be termed *quackery*.

When we have studied the human frame in all its relations, so as to comprehend fully and accurately all of its intricacies, we can only adopt this conclusion, that its whole mechanism is a monument of the power of Omniscience, and the movements and varied workings of that mechanism a beautiful evidence of Omniscience demonstrating its power by action.
Medical science, in its most comprehensive meaning, includes the whole science of organization or life; it consists in ascertained facts and phenomena or events, with their relation to other facts and phenomena, all being so classified and arranged, that just and proper conclusions may be deduced from them.

The great value of medical science depends entirely upon its connection with medical art, which is the practical application of rules deduced from a knowledge of the science, for the purpose of preventing, ameliorating and removing disease. These are its end and aim, and so far only as it secures these, may we regard it with interest, and look upon it as a blessing to our race.

Medicine will be acknowledged a science oftentimes, when no confidence will be placed in it as an art. It being allowed that the knowledge of the nature of a disease may be fully ascertained and justly appreciated, yet all application of rules deduced from such knowledge will prove futile and unavailing in the treatment of it. This, though, argues nothing against the close connection existing between the science and the art, for where the art may fail in success, many reasons will be found fully to account for such failure, which, instead of reasoning against, would prove negative arguments in favor of the rule.

Thus some cases of disease will terminate fatally in spite of all assistance our art may render, and indeed in defiance of such assistance, and are, as Sir Gilbert Blane expressed, "determinedly fatal," terminating in death, not by accident or through want of knowledge and skill, but necessarily and inevitably. In these cases there is every reason to believe, not that we have failed to find the means of curing them, but that there exist no such means to find.

Medicine should neither be viewed as a science only nor as an art only; under its general head we should include all those divisions of the science which compre-
hend a knowledge of the human organism, in its physiological and pathological, or more simply in its healthy and diseased state, and also a knowledge of the varied influences which may exercise, for good or ill, a control over it.

And beside this, under such a general definition of the science of medicine, we must also include such knowledge of the different arts, or systems of rules and laws, whose end and object will conduce to the preservation of health and to warding off or combating disease.

This definition of medicine is at fault in being almost too concise, to give correctly an idea of the importance and dignity of the science. But to define it less concisely and more correctly, would require a résumé, an analysis as it were, of almost all those branches of knowledge which combine to make it a science, and which it is essential that we should possess, in order to be fitted for practising it as an art.

We will use no effort to prove medicine a science, for merely defining it properly, dilating upon its philosophy, its dignity, and its importance, removes all necessity for further argument to prove it such; if we be able to do as much as this, we shall certainly succeed in satisfying the unprejudiced mind that the principles of medicine have truth and wisdom for their basis, and philosophy for the superstructure.

Medicine, as with all the sciences, owes its origin and successive development, to the earliest wants of mankind; those resulting from the instinct of self preservation, and the impulse of guarding against present or future ill, and for its further development and progress it is indebted to man's powers of observation, perception and reasoning; for aware of those accidents and diseases which might interfere with his health, or threaten extinction of his life, he was induced to seek at once a knowledge of the causes of such ills, in order to be prepared to ward them off, or be enabled to substitute a happy termination
to those threatening, grave and fatal consequences. Such efforts have naturally tended toward the accumulation of a mass of facts gleaned from observation, which having been weighed in the balance of reflection and reason, have given rise to a series of just conclusions, which may be considered as a part of the structure of the complete science; a part, we say, for there still remain many mysteries to solve, many puzzling questions to answer, before we may regard the truths and laws of the science of medicine as fully established and as clearly demonstrated, as are the truths and laws of some of the other sciences, which not long since were even more effectually crushed under by the weight of falsehood and error.

Medicine commenced its existence, though scarcely then deserving the title of a science, in ages previous to the records of history; through ages it has struggled, and it still continues struggling on; it has been influenced by all sorts of systems of philosophy and religion, by truth, by error and superstition; and it is only of late, that it has emerged from some of the prejudices which have overwhelmed and depressed it for thousands of years.

Of late, since we have applied ourselves more to actual observation and trusted less to vague speculation, has medicine made that great advancement, and remarkable progress, which have so distinguished all the natural sciences with which the science of medicine is so closely allied.

As it was with all the higher kinds of skill and knowledge in the earliest periods of nations, the science of medicine was almost exclusively monopolized by the priests. Its knowledge was a secret with the Egyptian priests, and in Greece the secret was sacredly guarded and transmitted from father to son by the family of the Asclepiades, an order of priests of Escurapius; to which order Hippocrates, who undertook, after laboriously and perseveringly studying the mysteries of the science, to
establish it upon a firm and truthful basis, by separating the results of actual experience from vague hypothesis and speculation.

His doctrine has been justly called an empiric rationalism, and though varied and numerous have been the systems which have arisen and flourished since his time, they have all yielded more or less to the principle inculcated by him, to make close observation the rule, for studying and systematizing the science of disease, in order to deduce from the facts observed, just and correct conclusions.

After Hippocrates, the followers of the science blended and confused his principles with those of the different systems of philosophy which arose about that time, until the ray of truth, which had just begun to glimmer, became almost extinguished in the evanescent glare of the numerous meteoric systems; and this little ray would have, perhaps, been quite eclipsed, had not the great and philosophic mind of Galen appeared to dispel the clouds which were then overshadowing medical science.

His system acquired an undisputed preeminence, which it retained for nearly fourteen centuries, having been adopted by the Arabians, who added much to the value of the system, in respect of its practical application and pharmacology.

The school of Salerno was the first to establish medical science in Europe; it existed, perhaps, as early as the ninth century, but was not well established before the twelfth and thirteenth centuries.

During the remainder of the middle ages, the science of medicine was mostly guarded by illiterate monks, if surrounding it with ignorance and superstition might be called guarding it, and it only escaped from their crushing influence after a most severe struggle.

After Harvey's great discovery of the circulation of the blood, 1619, many new systems arose, his discovery being used as a basis; most of which, though, eventu-
ally assumed the philosophy of the Dynamic System of Frederic Hoffman, the most celebrated individual of a name and family highly distinguished in the annals of medicine, from whose system the various systems of modern times have proceeded: such as that of Broussais, who endeavored to prove that all diseases owed their origin to an inflammation of the stomach and intestinal canal. Other systems like those of Hahmemann and of Priessnitz have since arisen, have temporarily flourished; some of them, indeed, are still flourishing, but it will only require time and the elucidation of the subject, to prove that, even though their reasoning may have been correct, the premises with which they started, and upon which their systems are based, were false and totally erroneous.

Medicine, as a science, may be considered as made up of the following different branches, constituting its component parts.

The first is that which serves as the foundation, we may say, for all the others, which is the knowledge of the human organism in health; this comprises anatomy, or a knowledge of the different parts of the human frame, and the arrangement of these parts as a whole; and physiology, which is the science of the phenomena, or different functions of these parts.

Hygiene constitutes the second division, which is the knowledge of those conditions necessary to regulate the healthy functions of the human body; this is an important division, for in just the proportion that we understand the functions of the body, in health, will we advance in our knowledge and appreciation of those accidents and disturbances, which may interrupt or interfere with the regular and healthy play of those functions.

In the mechanical world, the engineer, by his thorough acquaintance with machinery, his knowledge of the engine, the length of the cylinder, the size of its valves, together with other intricacies of its mechanism, is ena-
bled to detect even a tendency to any deviation from its correct working, and immediately bring his knowledge to bear; tightening a loosened screw or packing a gaping crevice, and thus, not only keep the machine in movement, but ward off all danger of accident.

And it should be thus with regard to the human mechanism. We, as medical men, should not only strive to restore the invalid to health, but still further, be capable, from our correct knowledge of the laws which govern and establish health, of preventing disease, by directing those conditions which are necessary for the promotion of health and ensuring its continuance.

This subject of Hygiene does not seem to meet with that attention which it deserves from those engaged and interested in the profession of medicine; and the popular opinion appears to be, that it is only the duty of the physician to prescribe, for example, cod liver oil or iodide of potassium, for the patient who may be attacked with that scourge of our race, consumption; and that no responsibility devolves upon the physician like that of cautioning, advising or warning the patient before the seeds of such disease have ripened, how he may cause a blight to fall upon them and arrest their further development.

As it is deemed a brilliant achievement for a great general to conquer an enemy without the sanguinary struggle of a battle, just so should it be considered of a physician who will overcome the approaching tendency to disease, without being compelled to combat the malady.

The remaining general divisions of the science of medicine may be included in the subjects of pathology and therapeutics. Pathology is the science of disease, the knowledge of all disturbances which may happen to the organization of the body, or to the functions of that organization; it is the opposite of Physiology.

Therapeutics is the knowledge of those means which
we may resort to, in order to combat, or to remove all such like disturbances.

The great extent of knowledge which combined forms the science of medicine, and the diversity of the qualities necessary to practice it, have tended to establish two divisions of its practice; that of medicine and that of surgery.

In practice, other more arbitrary and more circumscribed divisions have been made, in order to devote special study to some particular subject, so as to acquire a greater familiarity and skill in all that may belong to such particular department.

This plan, though, is hardly allowable; for the science of medicine is one and indivisible; and like the human organism which it studies, is made up of numerous smaller divisions, all chained together, each link dependent upon the other; and it is necessary to study all combined, accurately and thoroughly, in order to be familiar with each and every part.

Besides all these, under this general title of the science of medicine, we should study the well-being of man, socially, as well as individually considered. It is the duty of those forming our laws, not only to provide measures which may conduce to the benefit of man in his moral condition, but it is equally incumbent upon them to enact such laws as may promote and sustain his physical health and bodily comfort. This forms a branch of medical science which may be termed political medicine, and it has for its subdivisions medical jurisprudence and public hygiene.

Man also being in such close relation with all objects of nature generally, it becomes necessary to study and understand all their laws in order correctly to appreciate the relations existing between him and them. The human body both in life and death is subject to and controlled by the laws of nature, consequently the science of medicine can not be thoroughly or properly attained,
if it have not been preceded by an intimate acquaintance with the natural sciences, which should be regarded as indispensable accessories.

The logical processes of reasoning, which should be employed for investigations for medical science, are like those for all other branches of science, analysis and induction.

Induction which proceeds by degrees from particular phenomena to analogous ones, having more extended relations in order to arrive at the general causes upon which they all depend, is the only process capable of establishing a thoroughly scientific theory; but this is an extremely slow mode of procedure, and the desire to get over all the steps at a bound, to reach the highest point by overleaping intermediate ones, is the reason why medical science has been, and still is, the sport of so many vague hypotheses and wild systems.

Having thus fully dilated upon the science of medicine, I crave your indulgence a little longer, to say a few words about the duties of the physician, and to recount some of the qualities which it is necessary that he should possess in order to become eminent in the practice of his profession.

It is essentially important for the physician to have good habits of observation; then will each day's experience add to his general store of facts, which will at the same time enable him to rid himself of erroneous opinions, which may have been too hastily formed; then, also, will each advancing day find him a better and more skillful practitioner. But should he, on the contrary, start in his career with a loose and careless mode of observing, his experience will only prove a source of error.

The ordinary opinion, that experience necessarily confers knowledge, is an exceedingly false one. Because a physician may be old and have gray hairs, is no proof that he is a wiser man or knows more than he did when he was young. For, if in his practice, he have not
observed judiciously and correctly, he not only will not know more, but absolutely will know less. He may have more opinions and notions than he had when he commenced his practice, but he will not correctly know as many real and valuable facts; and what he may know, will be so encumbered by falsity and error, that they will be of little or no use to him.

Therefore experience is only valuable when it has been governed and directed by sound principles, which principles should be deduced from correct reasonings, based upon an accurate and extensive observation of facts.

But on the other hand, we must not lay too great a stress, upon the importance of a knowledge of principles. Separate from their demonstrations and corroborations by experience and practice, the two, theory and practice, are closely and intimately connected, each dependant upon the other, each illustrating, developing and strengthening the other.

Without doubt the advancement of the science of medicine depends upon the genius and skill of those engaged in its pursuit, yet, for its ultimate welfare and promotion, we must look to well established and thoroughly regulated institutions for the instruction of the science. The lower the standard of education is among medical men, the greater will be the number of ignorant pretenders to its benefits. On this account the interest of the public demands a proper standard of medical education, and from the very nature of the acquirements, necessary to fit one for the practice of the profession, the public at best is but illly qualified to decide upon the merits or demerits of those aspiring to its honors. Consequently, the tribunal to decide the question, and form such a standard, should grow out of, indeed be a part of respectable medical schools.

The relation which the physician sustains toward society is an interesting and somewhat peculiar one. He is admitted more freely—than those even enjoying some
tie of blood or family connection—to the privacy of the home fireside. He is entrusted unrestrainedly and cheerfully, with those confidences which are limited to the family circle, all of which in itself should teach him the sacredness of such confidence, and how carefully it ought to be guarded, lest it might be sacrificed and destroyed.

The scenes of anxiety, of trouble and sorrow, which the physician is called upon to share with his patients, will necessarily establish between him and them, a connecting bond of sympathy and affection, which will be as enduring as it is interesting, if such relationship have not been hastily, ill and unadvisedly established.

This should teach us rather to encourage than repress those natural sympathies and kindly feelings, which ought to actuate us whilst engaged in the avocation of our profession, going forth on our daily duties, mingling our sympathies with our professional services.

It is in the power of the physician to exert a widespread and beneficial influence, the advice which he may give, the opinions which he may express, and the example which he may set, will have a double force, on account of that intimacy and affection, which must necessarily grow up between him and his patient. What responsibility then rests upon the physician, how careful ought he to be in the expression of his opinions, at what a high mark should he aim in his daily life? From all these circumstances his web of life will be woven of a mingled yarn, the good and ill together, and if it will be well spent, though many of its ills may trouble and annoy him, yet the pleasures will be so bright, that the shadow of his sorrows will scarcely cast an obscurity.

The medical man is subjected to great fatigue of body and barrassment of mind; he find no one moment which he may really call his own; that order and regularity of life, so essential to comfort and so necessary to health, he must abandon all claim to. He can indulge in no stated season of repose and no stress of weather.
however violent, could be offered as an apology for the relinquishment of his duties: and for all this, even gratitude, which is in the power of all to bestow, is oftentimes most reluctantly and charily given. This ingratitude, indeed, from those upon whom we have conferred favors, is one of the hard trials which the physician has to undergo. He, who is faithful to his high trust, renders services for which money can never be an adequate compensation; his reward must then come from that satisfaction, which always attends the correct performance of duty. On this account, the relation between the physician and patient, ought not to be circumscribed within the narrow boundary of pecuniary considerations, for there is a sacredness about it, which a proper chivalrous feeling forbids subjecting it to the chances and changes incident to the relations of trade and commerce.

If this gratitude be withheld, the romance of doing good will not stand such a trial, for it would then prove but a Quixotic crusade, and we would live to learn that nothing short of the never-wearying benevolence of Christianity could sustain us through the discouragements of such a career.

But, gentlemen, we must not close after having viewed sombre points only of our profession, for the consideration of its pleasures will dispel all the gloom of its trials, and perhaps incite you to make nobler and greater exertions, to obtain and enjoy its glory and its honors.

Medicine, as a science alone, is replete with interest, and the study of it will prove a rich source of pleasure and gratification. Its intimate and extensive connection with all the other sciences adds to it an agreeable variety. In health the phenomena of life are exceedingly diversified and various, and when these phenomena become modified by disease, their variations are almost infinite.

The mysterious connection existing between mind and matter, awakens an intense interest both as regards facts of a mental and physical nature, the study of which
will draw us into investigations, as profound and intricate, as they are interesting.

There is consequently an absorbing enthusiasm in the pursuit of medical science, an enthusiasm which will impel its followers onward, inducing them to disregard the disgust of putrefaction, to pay no heed to the numerous annoyances which will be continually presenting themselves, and to forget all dangers in their search after its truths.

In the science of medicine there are many points yet unsettled, and in its practice there is often great uncertainty; still this takes nothing from the pleasure which we will derive in solving its mysteries, and separating the truth from falsehood and error.

As we progress in our knowledge of the science and become better skilled in its practice, it is true, we will be oftentimes more disposed to rely upon nature's efforts only for effecting the cure, yet we will derive great satisfaction in watching those natural efforts, in order that we may be prepared to offer all the aid in our power, to remove any obstacles, which might interfere with or retard the salutary progress of nature.

The results of the practice of a scientific, skillful and honorable physician can not be otherwise than gratifying to him; his vocation in life is to dispel pain and drive away suffering and distress from his fellow-beings, and, though perhaps the issue will not be always so successful as he might wish, still the very habit, which will daily impel him onward in the career of his duty, must necessarily render him hopeful, cheerful and happy. The physician's ordinary routine of duty, will be for him a source of study, from one of the most interesting books of the world's library, the great book of human nature, whose leaves will be constantly opened before him, from which he may glean much improvement as well as enjoyment.
Lastly, though by no means the least of all the pleasures, which the upright and benevolent physician may enjoy in the fulfillment of his duty, will be the opportunity he has of exerting a good moral influence; through his instrumentality, the haunts of vice and misery may be converted into homes of virtue and peace; and when such end is attained by means of his efforts, by his counsel and influence, he will enjoy a greater and more enduring happiness than all success, however brilliant; all honor, however lavishly bestowed; or all gratitude however sincere, can confer on him.

Though the trials and troubles of a medical man's life may be great and harassing, yet such pleasures as these will, in the end, obtain and conquer; and convince us that the practice of medicine is a high, a noble and an honorable calling.

Enter then, gentlemen, upon the studies of our profession with such opinions, and carry out its practice with such resolves, and I think you will need no further guarantee, that your course of life will run as smoothly and plesantly on, as its end will be peaceful and happy.

Whilst at Munich last year, I copied into my note book the following beautiful inscription, from the tomb of Philip Franz Von Walther, an eminent and good man, whom we have lately lost from the profession. "Incremento artis vixit, miserumque saluti corporis, atque animi lumen multis dedit idem."

In closing, gentlemen, my wish shall be that your daily lives will be the acting out of that motto; so that after life's struggles and pleasures are over, it may be also written of you, that you "lived to promote the glory of the arts and sciences, to restore health to the body, and shed light upon the minds of the multitude."