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Introductory Lecture Delivered Before the Class of Jefferson Medical College, By Professor J.B. Biddle. Monday, October 9, 1865.

J. B. Biddle

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INTRODUCTORY LECTURE

DELIVERED BEFORE THE

CLASS OF JEFFERSON MEDICAL COLLEGE,

BY

PROFESSOR J. B. BIDDLE.

Monday, October 9, 1865.

PUBLISHED BY THE CLASS.



PHILADELPHIA:

HENRY B. ASHMEAD, BOOK AND JOB PRINTER,
Nos. 1102 and 1104 Sanson Street.
1865.

CORRESPONDENCE.

JEFFERSON MEDICAL COLLEGE, October 10, 1865.

PROFESSOR J. B. BIDDLE,

DEAR SIR: -At a meeting held this day, by the Students of

the Jefferson Medical College, it was unanimously

Resolved, That a Committee, consisting of one from each State, be appointed by the President of the Class, to wait upon Professor Biddle and request a copy of his Introductory Address for publication.

RALPH M. TOWNSEND, President.

A. K. EBERLY, Secretary.

We, the undersigned, Committee, appointed under the above resolution, have the honor to submit it to your consideration, and hope it will meet with your approval.

WM. M. ORTH, Indiana,
A. H. WITMER, Pennsylvania,
JAMES GORDON, New York,
J. W. HARRIS, Mississippi,

J. M. LEE, W. Virginia,

J. S. WARREN, New Hampshire,

J. H. Hornor, New Jersey,

J. W. McDowell, Illinois, Robert J. Gregg, Missouri,

L. F. Ellison, Delaware,

WM. WEBB, Alabama, HENRY MULLER, Ohio

HENRY MULLER, Ohio, GEO. W. GRIFFITHS, Kentucky, ANDREW EASLEY, Virginia, JOHN C. PEYTON, Tennessee,

CHAS. C. AIMES, Vermont,

Bela Cogshall, Jr., Michigan,

A. A. KRETZER, Maryland,

W. D. PHILLIPS, Arkansas,

B. S. MACKEE, Louisiana,

C. P. FULLER, Minnesota,

D. CLANTON, Texas,

J. R. FLOOD, Canada West,

G. E. Buckley, Nova Scotia,

A. L. PECK, New Brunswick,

RAMON D. ZARRACINO, M.D., Cuba. John H. Mears, Mexico,

REINHARD WEBER, Germany.

FRED. BARRETT, Treasurer of Committee.

No. 1119 SPRUCE STREET, 13th October, 1865.

J. B. BIDDLE.

Gentlemen:—I have great pleasure in furnishing you with a copy of my Introductory Lecture for publication,

And remain very faithfully,

Your friend and servant,

To Messrs. Wm. M. Orth,

A. H. Witmer,

James Gordon, J. W. Harris,

Jas. M. Lee, and others,

Committee on behalf of the Class of Jefferson Medical College.

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INTRODUCTORY LECTURE.

GENTLEMEN:

I have been appointed by the Trustees of the Jefferson Medical College to the Professorship of Materia Medica and General Therapeutics in the College, and, by the selection of the Faculty, I have the honor now to appear before you, to inaugurate the course of lectures for the present session. The natural diffidence with which I approach duties so responsible, is—I may freely say—relieved by an entire reliance upon your generous sympathy, encouragement and support. Distrustful as I must feel of my abilities and qualifications for the important position with which I have been honored by the confidence of the authorities of the Institution, I am, at least, however, fortified in assuming it, by a consciousness of a long and exclusive devotion to the subject, of an experience of many years in teaching it, and of a conscientious determination to apply the best energies which I possess to your instruction and improvement.

No branch of medicine embraces so wide a scope of study as the Materia Medica. It comprises a knowledge of every object in creation—immaterial as well as material—which may act upon the human system in the relief of disease and the prolongation of life. And it involves a consideration of the mode in which these agents influence the vital powers, and of the changes which they produce upon the organism. The domain of the Materia Medica almost includes the domains of pathology, physiology and chemistry. Indeed, "the whole philosophy of medicine," says Sydenham, "consists in working out the histories of diseases, and applying the remedies which may dispel them."

With an almost limitless field of examination, the single object, to which our labors point, is the cure or palliation of disease. It is this consideration that constitutes alike the attraction and the

importance of our subject, and renders the other departments of medicine subsidiary to ours. However sedulously you may devote yourselves to the study of structure and of function, to the analysis of the organic and inorganic mysteries of nature, it is here that you are to learn the practical application of your art. Therapeutics—the healing of the sick—the employment of the Materia Medica—is to be the daily business of your lives hereafter. No plan or incompleteness is admissible in your knowledge here. It is the substance of the whole matter, in which you must be terites, toti, alque rotundie.

Of all the departments of medicine, none has been so assiduously cultivated in our country, or contributed so largely the fruits of original investigation, as the Materia Medica. The works of American authors upon the subject have, I may venture to say, illustrated more positively our national reputation, and enjoyed a more extensive and remunerative circulation, than those upon any other medical topic. And I feel warranted, too, in claiming that no branch has been taught among us with more eloquence and success than this.

During the forty years that have elapsed since the foundation of the Jefferson Medical College, the professorship of Materia Medica has been filled with eminent talent and popularity. Not indeed overshadowing. For we know what we owe to the labors of McClellan, and Mütter, and Mitchell, and Bache, and Meigs,—that brilliant galaxy, that placed this school in the front rank of American Medical Institutions.

I believe that I may appropriately take the occasion to offer to you some notice of my predecessors in the chair which I have the honor to occupy. It is a part of the history of our school which deserves especial and distinctive record, and to which we can refer with interest and with pride.

Dr. Thomas D. Mitchell, whose lamented demise occurred since the close of your last session, was, at the time of his death, the oldest teacher of medicine in the United States. His professional career was a long, a varied, and a migratory one. Born and educated in Philadelphia, he appeared first as a lecturer in this city in the year 1812; and, in different institutions, and in distant sec-

tions, and upon more than one subject, he continued the labors of a lecturer, until interrupted by death, a few months since.

Thomas D. Mitchell was of an old Philadelphia family, settled in this country for many generations—originally, I believe, of Scotch-Irish origin. He was the eldest of five children of Jacob and Rebecca Mitchell, born in Philadelphia, 3d September, 1791. Those of you who remember his fresh and vigorous appearance, his active bearing, and his sonorous tones, now probably learn with surprise, that he had nearly completed his seventy-fourth year, when, a few months since, he was punctually and with apparently unimpaired powers, discharging the duties of this chair. It is given to few to tread the stage of active life thus late. I remember no professor in our medical schools who retained his position at so advanced an age. Perhaps it is the wiser part earlier to leave the scene of labor, and to gather up a little remnant of ease before all things are over. But, whatever intimations of failing health Dr. Mitchell may have had, his mental energy did not flag, and, no doubt best understanding his own organization, he preferred to bear his harness to the end.

Dr. Mitchell's preliminary education was, I learn, chiefly obtained at the well-known Friends' Academy of this city, where Physick, Wistar, Parrish, and many other men, afteward eminent in our profession, received their training. With an early bias for natural science, he became, at the age of sixteen, a student of chemistry in the laboratory of Dr. Adam Seybert, a distinguished chemist of that time. Thence he passed into the office of Dr. Joseph Parrish, in the year 1809, to commence the study of medicine. As a private teacher of medicine, Dr. Parrish stood foremost in his day. Many of his pupils attained high eminence; and among them I may particularly mention Dr. Wood and Dr. Mitchell, both of whom became professors of Materia Medica, and whose classes were, I presume, the largest ever assembled in the world.

Dr. Mitchell attended three courses of medicine in the University of Pennsylvania. The faculty of that day was composed of men, whose names are now part of the history of American medicine—Rush, Wistar, Barton, Physick, James and Coxe. Young Mitchell, like most of his cotemporaries, became a warm admirer of Rush, then in the last years of his brilliant career, and whose genius and

fervor were always irresistible with his students, and made a lasting impression upon the medical opinions of his countrymen.

Dr. Mitchell graduated in 1812, having prepared a thesis upon acidification and combustion, which was afterward published in the memoirs of the Columbian Chemical Society. Before his graduation, he had written papers for various medical and literary journals. His pen was prolific, and, though chiefly employed on strictly scientific subjects, reached more than one department of medicine.

Shortly after his graduation, in 1812, he was appointed Professor of Vegetable and Animal Physiology, in St. John's College. In 1813, he received the office of Lazaretto Physician for the port of Philadelphia, which he held for three years. For some time afterward, he was engaged in private practice in Philadelphia, then at Norristown, a town in the interior part of the State, and from 1822 to 1831, at Frankford, a suburban village near Philadelphia. As a practitioner he was very successful. Skillful, self-reliant, attentive, sympathetic, he had all the elements of character which secure popular favor. Those of you, who knew him as a lecturer and writer on Therapeutics, can readily portray him to yourselves as a bold, confident, and trustful dispenser of the Materia Medica, thinking and observing for himself, and little likely to lapse into routine. Among the papers which he contributed to the medical journals, during this period, I may mention the successful results of his treatment of epidemics of intermittent fever, by Fowler's Arsenical Solution, which he prescribed in doses two or three times the amounts generally given.

Chemistry occupied a considerable share of Dr. Mitchell's attention in the earlier years of his professional career. In 1819, he published a small volume on the subject of Medical Chemistry; and in 1832, a large octavo work on the Elements of Chemical Philosophy, which had much success as a text-book in the Colleges of the West.

In the year 1831, Dr. Mitchell was induced to leave his home here, to accept the chair of chemistry in the medical school of Cincinnati, with colleagues of established reputation, among them Drake and Eberle. In 1837, he accepted the same chair in the Transylvania University, at Lexington, Kentucky, and in 1839, he

was transferred to the chair of Materia Medica and Therapeutics, in that institution, which he held for ten years.

The Transylvania University was the earliest of the Western medical schools, and for many years enjoyed a deserved celebrity and popularity. The growth, however, of the city of Louisville, led to the establishment of a rival medical college in the same state, and finally to the decline of the old school at Lexington.

In 1849, Dr. Mitchell resigned his chair in Transylvania, and accepted the professorship of the Theory and Practice of Medicine in the Philadelphia College of Medicine. He remained, however, here but for a brief period; for, in 1852, we find him again in the West, filling the same chair in the Kentucky School of Medicine, at Louisville. I presume that the success of this new enterprise did not meet his anticipations, for he withdrew from it in 1854, and once more returned to his native city. Better, probably, had it been for his interests, that he had never left it. He came back, indeed, with an honorable reputation, but at an advanced age, without the solid rewards which his long labors and eminent talents so well deserved.

These, at length, however, were brought within his reach. In 1857, the vacant chair of Materia Medica in the Jefferson Medical College, was conferred upon him; and, for eight years, he filled this appointment with popularity and success. His popularity was soon established, for he was an earnest and impressive lecturer. Thoroughly at home in all the departments of his branch, a good chemist and a good therapeutist, his manly presence and commanding voice and ready flow of language easily carried with him the attention and the interest of his class. There were no doubt points in his style and method to which we might take exceptionrough corners here and there which we should have wished to see rounded. But, he was master of his subject, and taught it clearly, forcibly, and eloquently. He was never dull, never commonplace. He had about him that individuality which characterized our teachers of the olden day, and which we are, perhaps, sacrificing to our efforts for greater accuracy and completeness.

In all his relations to the College, Dr. Mitchell's record is unexceptionable. As a member of the Faculty, his colleagues say of him that "he was in all respects conscientious and estimable, ever

acting with them in the greatest harmony." His example and precepts to his class were always edifying, for he was a good and religious man. Of a retiring disposition, he lived chiefly for his family and his profession, and was little known in general society. But he was a zealous and devout church-member, and an earnest advocate of social and moral improvement.

Of Dr. Mitchell's numerous publications, I shall only here allude to his Materia Medica and Therapeutics. This was first published in 1850, and, in 1857, went to a second edition. It has always impressed me very favorably, and I consider it one of the standard books on the subject. No American work on therapeutics surpasses it in originality and force; and, if deficient in some points as a textbook, it has merit that must always make it a valuable book of reference.

Dr. Mitchell's immediate predecessor in the chair of Materia Medica, was Dr. Robert M. Huston. Dr. Huston died about a year ago, and his life and professional career have been so recently sketched by my colleague, Dr. Rand, that I shall but briefly notice them. Dr. Huston was born in Virginia, in 1794, but came at an early age to the neighborhood of Philadelphia. During the war of 1812, he served as an assistant surgeon in the army, and, after the close of the war, engaged in the practice of medicine in Philadelphia. His success as a practitioner was very great, and he long ranked as one of our best obstetricians. In 1838, he was elected to the chair of Obstetrics in the Jefferson Medical College, which he filled with much ability and success. In 1841, upon the reorganization of the school, with a view to the introduction of Drs. Meigs, Mitchell, Bache, and Mütter, into the Faculty, Dr. Huston, sacrificing his own preferences to the general interest, accepted the professorship of Materia Medica. Thus unexpectedly placed in a department to which his attention had not been previously directed, he found himself for a time embarrassed by a want of familiarity with the technical details of the subject. Tact and diligence, however, supplied this deficiency, and, from his readiness and fluency as a speaker, and his great practical experience as a therapeutist, he was able to become a very interesting and instructive teacher. He occupied the chair until 1857, when his failing health induced him to retire.

For a short time before the appointment of Dr. Huston to the professorship of Materia Medica, it was filled by my venerable colleague, Dr. Dunglison. At home in all the branches of medicine, he discharged the duties of this chair, in addition to those of his

own, in his usual happy style.

For many years previously, it had been occupied by Dr. Samuel Colhoun, who was appointed to it in 1831, and retained it until his resignation in 1838. Dr. Colhoun, a native of Chambersburg, in this State, and a graduate of the University of Pennsylvania, was a learned and laborious man. A zealous student of his branch, which he illustrated by research in the field of experimental analysis, he was an impressive and efficient, though not, I believe, a showy or rhetorical lecturer. He enjoyed considerable reputation in his day as a general cultivator of science, and was an active member of the American Philosophical Society.

For short periods, in the early days of the College, Dr. Wm. P. C. Barton, Dr. Benjamin Rush Reese, and Dr. John Eberle, were successively the incumbents of this chair. Dr. Barton, the author of a valuable original illustrated work on the Vegetable Materia Medica of the United States, was distinguished as a lecturer and writer on medical botany. A surgeon in the Navy of the United States, he was unable long to hold his position in the College; but he gave for many years afterwards very successful private courses on medical botany. He filled, under the administration of President Tyler, the office of Chief of the Bureau of

Medicine and Surgery in the Navy Department.

Dr. Eberle, a wayward son of genius, who appeared on the scene here for a short season, and afterwards ran a longer and distinguished career in the West, is well known as the author of works of great merit on the Practice of Medicine and Therapeutics. For many years, they maintained the first position as text-books on these subjects, but, since his death, have gragually given way to more recent productions. Eberle had high natural endowments, with industry and enthusiasm. His opening was one of great promise, which his later career scarcely realized.

Such, gentlemen, is the historical record of the chair of Materia Medica in the Jefferson Medical College. I shall aim, so far as I am able, to maintain its reputation, and to extend its usefulness.

The consideration of the Materia Medica embraces numerous and distinct points of examination. It is to be treated in its physical, chemical, physiological, therapeutical, and pharmaceutical relations; and to all these points of view your attention will be directed in the ensuing course. It will be my endeavor to discuss the subject in its various bearings, omitting nothing that can properly illustrate it, but always keeping in mind, that it is at the bed-side that medicines become invested with their real interest and importance. Allow me briefly here to dwell upon the different branches of study, which are connected with the Materia Medica.

The vegetable kingdom of nature was the earliest as it is the most prolific source of remedial agents. The instincts and the prejudices of mankind have always led them in this direction in their search after health. It is to

"The earth, that's nature's mother,"

that we have instinctively looked for the alleviation of the "natural shocks that flesh is heir to." And hence,

"The small flower, within whose infant rind Poison hath residence, and medicines power,"

becomes the first and most obvious object of interest in our study of pharmacology. The physician must be familiar with the sensible properties and characters of the plants which he prescribes. knowledge of the technicalities of botany is not indeed exacted, as an indispensable requirement, from the candidate for the honors of our profession. But some acquaintance with the laws that govern vegetable life is of cardinal importance. A practical familiarity with our indigenous medicinal herbs cannot be dispensed with. The country physician is the natural custodian of the flora of his neighborhood. It is to him that his profession looks for the investigation of their medicinal properties; and there is surely no more inviting field to the young student, desirous of contributing something to the stock of medical science, than this comparatively neglected province of investigation. When we bear in mind the increasing costliness and scarcity of foreign drugs, and the possibility of the not distant failure of some that we now consider all-important to therapeutics, we have every incentive to diligent and persevering devotion to our own native resources.

The botanical affinities of plants are often illustrative of their medicinal effects. Thus, the Cruciferæ evince a striking similarity in their mode of inflorescence and fructification. They all possess pungent and acrid properties, dependent on a volatile principle, and are alike useful as stimulants and condiments. The natural order, Rosaceæ, is marked by a pervading astringency, while at the same time it yields some of our most delightful fruits-the pear, apple, strawberry, and raspberry. The almond tribe, or Amygdaleæ, contain the principle amygdalin, from which prussic acid is evolvedwhen naturally distributed through fruits, a most agreeable flavoring ingredient, but, when concentrated by chemical art, a deadly poison. So, too, the un-Celliferous order illustrates in its various organs, very strikingly, medicinal analogies; the seeds are aromatic, the herbaceous portions poisonous and narcotic, while the concrete juices of the roots often manifest decided antispasmodic properties—as assafætida, ammoniac, and galbanum. The Solanaceæ yield some of our most active narcotics, characterized by a remarkable effect in dilating the pupil of the eye. Nightshade, thornapple, henbane, tobacco, bittersweet, are all included in this group; and, although it furnishes some approved esculents, as the potato, tomato, and egg-plant, yet the same poisonous principle is found even in portions of the plants which yield these familiar articles of diet.

The study of vegetable physiology elucidates still further the harmony which obtains in the botanical and medicinal affinities of plants. Their roots perform functions analogous to those which are exercised by the digestive apparatus in animals. In the leaves, respiration is carried on by a pulmonary system like the gills of fishes or the lungs of mammalia. A circulatory provision for the distribution of a fluid, which may be compared to the blood, is found; while from this vegetable blood are secreted glandular products, as starch, sugar, honey, wax, resin, mucilage, and oils. The rudiments of a muscular and nervous system—irritability, sensation, nay, even instinctive powers,—are not wanting. In each of these organs principles reside which may be productive of medicinal effects, and particular groups assimilate to each other not only in structure and in character, but in their influence upon the human system.

The effects of cultivation, soil, climate and other physical causes, upon the vegetable Materia Medica, are striking and important. The hemp plant, so largely grown in our own country, and here inactive, becomes endowed, under the fertilizing sun of India, with a resinous secretion of wonderful narcotic power. The hemlock and the flowering ash, in the genial semi-tropical regions of Southern Europe, display a remarkable medicinal activity, which they lose when transplanted to the bleaker North. And, on the other hand, botanical science has succeeded in transferring the growth of important plants from the limited localities, where they are indigenous, to more extensive areas where their cultivation becomes of immense commercial interest. While the rapid exhaustion of the invaluable cinchona, in its native woods on the Andes, has been exciting grave apprehension and uneasiness throughout the civilized world, the patient exertions of European botanists have within the last few years been providing for the possible deficiency by transplantation of the trees to congenial soils in the distant East. After many difficulties, these exertions have been crowned with success, and the Bolivian chinchona-trees now shed the delightful fragrance of their blossoms on the mountains of Southern India and Java, and yield barks no less rich in the alkaloids, quinia and cinchonia, than the best products of the South American forests.

Not only the vegetable kingdom of nature, but the morbid growths that infest and prey upon it, have been made useful agents in the treatment of disease. Many of the grasses are subject to a blight, developed by the presence of a parasitic fungus, that often destroys the hopes and labors of the agriculturist, and renders the food prepared from it productive of the most frightful epidemics. The seeds of the wheat and of the rye, thus perverted by disease, have been found to exert the most decided effect in hastening delivery in child-bed, and in restraining hemorrhages from the organs and tissues of the body.

The very last links in vegetable life, the seaweed which is on the very confines of organized existence, and the lichen, which appears upon plants only in a state of putrifaction, yield important products to the Materia Medica. They furnish a large amount of gelatinous and demulcent nutriment, and from the help of seaweeds, within the past half century, chemical science has eliminated the principle iodine, which now holds so high a rank among therapeutic agents.

We can scarcely doubt that our benificent Creator has distributed over the surface of the globe the vegetable substances which are adapted to the wants of man in disease as well as in health; that in the flora of the various portions of the earth—mountains, valleys and plains—are to be found the abundant sources of medication as well as of food,

"Many for many virtues excellent,
None but for some, and yet all different."

Turning now to the animal kingdom, we find it play but a subordinate and subsidiary part in its contributions to the Materia Medica. A few useful articles are, however, obtained from animals, as many of the fats, spermaceti from the whale; the valuable antispasmodics, musk and castor from the musk-deer and beaver; the delicate isinglass from the swimming-bladder of the sturgeon. The insect tribe contributes perhaps the most valuable of the articles of this division—the blistering-fly, honey, wax and cochineal are also derived from the same source. Among the articulated animals, too, we find leeches, an indispensable appendage to the physician's resources.

The mineral kingdom supplies us with a vast number of energetic and useful medicines. Popular prejudice invests this branch of the Materia Medica with pre-eminent activity, and, in the language of the vulgar, the entire class is designated as the mineral poisons? You will find, however, that the most violent and uncontrolable of the poisonous agents, which you will encounter, are derived from vegetables, and that there are no good grounds for considering the articles furnished by the mineral kingdom unduly dangerous and In your study of mineral substances, a knowledge of chemistry becomes indispensable. Without it, their nomenclature and classification cannot be understood, and the most serious results may flow from the admixture of conflicting materials in prescribing. As illustrative of the danger of combining chemical incompatibles, I may mention, that within a short time it has happened to me to witness the most alarming consequences from the conversion of the ordinary or blue pill into corrosive sublimate, once by its being

followed by an enema of common salt, the chloride of sodium, and again by its unscientific administration with the nitro-muriatic acid.

Chemistry points out to us the mode in which medicines are introduced into the system. It furnishes us with antidotes against their effects when taken in hurtful quantity. It separates their operative ingredients from inert and cumbersome surroundings. It even developes principles which do not prëexist. In isolating the active constituents of medicines, chemistry has conferred a priceless benefit upon the Materia Medica. We can scarcely think now without a shudder of a therapeutics to which the salts of quinia are wanting.

Not less important than an acquaintance with the sensible characters of medicines, is a knowledge of their action on the economy. These we study partly from analogy, and partly from the results of direct experience. The effects of medicines upon animals are in some degree illustrative of their influence upon the human system. Bear in mind, however, that they do not, in many instances, affect man and the lower animals alike. The domestic fowl will fatten upon the seeds of the castor oil plant and the thorn apple, while they are highly poisonous to human beings. The hemlock is eaten with impunity by kine; large quantities of morphia have been administered to rabbits without narcotic effect.

It is only from experiments upon human beings that any positive lessons as regards the curative action of medicines can really be learned. Medicines, however, act differently in disease and in health. The invaluable control which the preparations of cinchona exert over the different forms of miasmatic fever, could never have been inferred from any influence which they manifest over individuals not suffering from these diseases. While, therefore, much important knowledge is derived from the results of experiments upon the healthy organism, it is clinical observation that is the essential, I may say the only basis of accurate therapeutical deduc-This is the test by which all our precepts are to be tried, and to experience alone can we resort, as our final guide in deciding upon the therapeutic efficacy of medicines. Not the experience of an individual, of a country, or of a particular period, but the collected observations of successive ages. I shall endeavor to bring

before you this most important department of our subject in a spirit of conscientious and eclectic discrimination, aiming only for the results of well attested facts, and discarding speculations—physiological and pathological—except so far as an acquaintance with the principles of medicine may elucidate or confirm the established action of remedies.

The Materia Medica has been practically taught in two different ways. On the one hand, it has been made a mere catalogue of material details, which, however learned and useful, must fail to interest the attention of the student, when not especially pointed to his instruction in therapeutics. On the other hand, it has been not unfrequently expanded into a general investigation of disease, to the neglect of the instruments which are to be employed in curing it. It shall be my object, however imperfectly I may accomplish it, to present to you both the Materia Medica or a knowledge of medicines and therapeutics, or the art of administering them.

I have ventured, gentlemen, to direct something more of your attention than is usual in a general introductory lecture, to the particular subject which I have been appointed to teach. Appearing before you for the first time to assume the duties of this chair, I trust that you will not deem some allusion to the topics, which are to occupy us, inappropriate.

It is my pleasing duty, however, in addition to offer you some words of congratulation and encouragement upon the profession which you have chosen, and the career upon which you are about to enter. Most sincerely do I offer them. For, indeed, the energies of man cannot be engaged in a nobler avocation than that which deals with the structure and organization of his species, which teaches him to conquer pain, and disease, and death, and which familiarises him with the most hidden details of the sad and interesting story of humanity. An avocation, too, in which the practice of benevolence and the relief of human misery, will constitute not an occasional indulgence or an indirect aim, but the great business of your lives. The great Roman orator said of medicine, "Deorum immortaluim inventioni consecrata est ars medica"—"medicine was reserved for divine invention."

Into the portals of this noble art we most cordially welcome you. It will be our part to promote your efforts to attain it, and to direct

you through this period of probation with watchfulness and interest. May we not hope to receive from you the coöperation of diligence, earnestness, and perseverance. To say to you, gentlemen, that upon the employment of your time now your future career essentially depends, is to repeat what you may perhaps consider trite and common-place advice. It cannot, however, be too often urged upon the student, that, if he avoid the struggle now, he is seldom permitted the opportunity hereafter of redeeming lost time. The elementary branches of medicine must be mastered now or not at all. After graduation, your attention will be drawn to the study of disease and of books, and you can scarcely, even if disposed to repair past neglect, supply the place of the demonstrations and illustrations which are now at your command. The habits, too, which you form during your pupilage, are formed for life. It is the diligent student that becomes the successful physician; and, if you permit indulgence or dissipation to creep upon you here, your ambition and your usefulness will be fatally blighted.

I would add a single word of advice as regards your plans of study. While devoting yourselves closely to the courses of lectures upon the various branches of medicine, let a certain spirit of concentration pervade your labors. Always bear in mind, that your great object is to make yourselves practical physicians and surgeons; and that the chief value of the various departments of knowledge, which you are toiling to acquire, is their relation to the treatment of disease. You must remember, eloquently remarks the late Dr. Graves, "that when you will come to treat disease, you will approach the bedside as physicians and surgeons, and not as chemists, physiologists, and anatomists; this is the character in which you are to appear, and to the acquisition of knowledge, which will prepare you for the discharge of its duties, you ought to engage your chief attention."

I would also caution you against the temptation of desultory reading. You must be not only students, but persevering students, and systematic students, devoting yourselves to the thorough investigation of the subjects presented in your lectures, and exhausting so far as they are concerned, all the sources of information within your reach. It is the foundation that you are now to lay of that

temple of knowledge, which your future lives are to be spent in rearing.

You are coming upon the stage, gentlemen, under happy auspices. The clouds of war that have so long hung over our beloved country, are at length dispersed, and the sun of peace has arisen, and is gladdening with its beams the land so lately desolated with fraternal strife. It is a propitious time for the cultivation of our profession of mercy and of science. The greatest of poets has said,

"A wise physician, skilled our wounds to heal, Is more than armies to the common weal."

Enter, then, upon the career which you have chosen, with the determination not to falter till you have reached the goal. Great is the prize which awaits successful effort. But sad, indeed, will be the consciousness of failure, from wasted or neglected capabilities.

"It is hard
To lie upon this earthly battle-field,
Among the faint and helpless in the rear,
And see the strife and the eternal prize
Borne off by other hands, and hear the trump
And all the victory which we cannot share."

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