Introductory Lecture to the Course of Institutes of Medicine, and Materia Medica, in Jefferson Medical College, of Philadelphia. For the Session of 1839-40.

Robley Dunglison, MD
INTRODUCTORY LECTURE
TO THE COURSE OF
INSTITUTES OF MEDICINE,
AND
MATERIA MEDICA,
IN
JEFFERSON MEDICAL COLLEGE,
OF PHILADELPHIA.
FOR THE SESSION OF 1839-40,
BY PROFESSOR DUNGLISON.

Published by the Members of the Class.

PHILADELPHIA:
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Philadelphia, November 13th, 1839.

Professor Robley Dunglison:

Dear Sir,—At a meeting of the Medical Class of Jefferson College, held in the Anatomical Theatre, this morning, Mr. C. B. Nottingham of Virginia, having been called to the chair, we the undersigned were appointed a Committee to solicit a copy of your very able, eloquent, and instructive Introductory Lecture for publication.

In discharging this very pleasant duty, permit us, Sir, to add our wishes to those of the Class, that you will comply with their request, impressed as we are, individually, with the belief that your Lecture is eminently calculated to encourage, gratify, and enlighten the mind of the student.

Cherishing the hope that you will furnish a copy, we subscribe ourselves your most

Obedient servants,

C. B. Nottingham,
W. H. Locke,
H. K. Green,
J. J. Thaxton,
Andrew Bruce,
Committee.

Philadelphia, November 14th, 1839.

Gentlemen,—

Although my feelings have always urged me to decline the publication of introductory addresses delivered to my Class, I do not think I can refuse on this occasion their united request, conveyed in terms so flattering to me. A copy of it is, therefore, at their service.

May I beg of you to express to the Class my high sense of the compliment they have paid me, and to believe me,

Very faithfully your friend and servant,

Robley Dunglison.

To Messrs. C. B. Nottingham,
W. H. Locke,
H. K. Green,
J. J. Thaxton,
Andrew Bruce,
Committee of the Class of Jefferson Med. Col.
INTRODUCTORY LECTURE,

SESSION 1839-40.

The revolution of another year has brought many of us, gentlemen, for the second time together. With those of you who have passed the novitiate, and already devoted yourselves, for a medical session, to attendance upon the lectures delivered in this Institution or elsewhere, and who have appeared within these walls to listen to the voice of instruction for another period, the meeting of the teacher and the taught must be full of interest. It is the commencement of a re-union which may terminate in the consummation of your wishes, the acquisition of the highest honours of your profession, or end in bitter disappointment,—the result for good or for evil being greatly dependent upon your own exertions.

To such of you as are here for the first time, the meeting is no less momentous. Although you may have devoted time and attention to the study of your profession, as derived from books and from the office instruction of your preceptors, you have not been accustomed to listen to precepts conveyed in the form of lectures on so many departments of the science, necessarily delivered in rapid and constant succession. The first impression may be discouraging. It may seem to you that it is impracticable to acquire so much, and that the amount of assiduity and ability required to fathom the depths of the science is overwhelming. Such may be your first impression; but this will be evanescent. You will gradually become habituated to listen; you will as gra-
dually become accustomed to think after, if not with, the teacher. Hope will take the place of despair, if the latter feeling were ever indulged; and as

"True hope is swift, and flies on swallows' wings,
Kings it makes gods, and meaner creatures kings,"

before the prescribed session has far advanced, the feeling of hope will have stimulated you to exertion; you will have fully comprehended the facts and the reasoning adduced by those whose sole object it is to possess you of that information which they themselves have acquired by years, and many years of toilsome observation and reflection, and you will leave these halls disenfranchised of preconceived notions or prejudices; full of zeal for the promotion of the dignified profession you have embraced, and elevated—not unduly elevated, however—by the knowledge you have obtained.

With many of you, too, this is probably the first occasion on which you have been separated from home, and all those endearments which the word proverbially embraces. You have left those behind you who are full of solicitude as to the course you may adopt, exposed as you must necessarily be, to a certain extent, to all the allurements and dissipations that are considered—but erroneously—to belong almost exclusively to a great city, and whose fond hopes and expectations will be fulfilled or quashed by the conduct which you may pursue. You are thrown, perhaps, for the first time, on a broad world, where, instead of being unsuspecting and confiding, you will have to scan with caution, and to distrust even where all may seem fair. Although in the midst of a population of nearly 250,000 souls, your first feelings may be those of solitude, of "populous solitude," and you may be disposed on that account to receive the approaches of those who may appear to you agreeable, upright, and disinterested, instead of exerting that time and caution which are requisite in forming all your associations. I well recollect, gentlemen, when I first left my maternal roof, (a father's care I knew not,) and after a sleepless night in a public stage, at an early hour in the morning passed through the numerously tenanted streets of the Scottish metropolis in search of that knowledge, the necessity for which has
brought you hither. Thrown, for the first time, on my own judg-
ment to decide on the right and the wrong; heart-broken at my
recent separation from all that were dear to me; solicitous for
the future, necessarily hid in darkness; and alone, for the first
time, amidst hundreds of thousands. How bitterly did the feeling
of utter solitude impress me! Even at this time I can recall,
painfully recall, the overpowering emotions. Never was there a
truer picture of the feelings I endured, and which many of you
have doubtless experienced in like circumstances, on changing a
rural for a civic life, than that which has been so beautifully
drawn by a great, if not a moral poet:

“To sit on rocks, to muse o'er flood and fell;
To slowly trace the forest's shady scene,
Where things, that own not man's dominion, dwell,
And mortal foot hath ne'er or rarely been;
To climb the trackless mountain all unseen,
With the wild flock that never needs a fold;
Alone, o'er steeps and foaming falls to lean;
This is not solitude: 'tis but to hold
Converse with Nature's charms, and view her stores unroll'd.

But midst the crowd, the hum, the shock of men,
To hear, to see, to feel, and to possess,
And roam along the world's tired denizen,
With none who bless us, none whom we can bless;
Minions of splendour shrinking from distress!
None that, with kindred consciousness endued,
If we were not, would seem to smile the less
Of all that flatter'd, follow'd, sought, and sued;
This is to be alone—this, this is solitude!

Yet, gentlemen, I can equally recollect how rapidly these feel-
ings of solitariness vanished, when my mind became occupied in
listening to, and reflecting on, the doctrines so ably inculcated by
many of the distinguished individuals who taught in that cele-
brated seat of medical learning; and such, I doubt not, will be
your experience, after you have become thoroughly interested in
the lectures delivered here.

I have mentioned that the result of your professional studies,
and I may add, ultimate success, will depend greatly on your own
exertions. The remark, that every man of eminence in science
is self-made, is indisputably just. Natural endowments may com-
municate a facility of conception and of execution; yet command-
ing distinction is only to be attained by well directed, sus-
tained, and strenuous efforts. The feeling prevalent amongst the
vulgar, that a knowledge of medicine comes by nature, is passing
away—strange that it should have ever existed—and it is now
almost universally conceded, that nothing but a sedulous culti-
vation of the powers of observation and reflection can render an in-
dividual familiar with the intricate mechanism of man in health
and in disease; in short, with that which has been properly re-
garded and described as "the most inductive of all sciences."

Medicine has commonly been esteemed an essentially practical
art, and one that may be acquired by observation, or as it has
been termed, "experience" alone. The observation of a certain
number of facts has been looked upon as sufficient to make the
medical practitioner, if not the medical philosopher; and science
(in our profession,) has been regarded amongst the people as not
only unnecessary, but in some respects as a disqualification. Give
me, they exclaim, the practical, rather than the scientific
physician, thus placing the practice and the science of the profession in un-
worthy contrast. Nor is this estimate confined to our own pro-
fession. I recollect hearing a distinguished legislator, whose at-
tention had been largely directed to the formation of canals in a
Southern state, make the same observation as to engineering:
Give me one practical engineer in preference to a dozen of the
scientific! At the first aspect, this exclamation may appear to
be well founded. A man of great vigour of intellect, and with
excellent powers for observation, may work out for himself a
greater amount of practical skill, than one of the same powers,
whose attention has been wholly or mainly directed to the theo-
retical or scientific consideration of a subject; yet no one will at-
tempt to deny that his labours would have been greatly facilitat-
ed, and their ultimate value enhanced, had he possessed, at the
same time, a due knowledge of the scientific principles of his call-
ing. Perhaps, gentlemen, there cannot be a more unfortunate
feeling than the one to which I have alluded. It is a vulgar and
unfounded prejudice; and existing, as it does, to some extent
amongst the community, it is too often laid hold of even by un-
worthy members of our own profession, who are desirous of
elevating themselves, and at the same time of depressing others. Dr. A. they will admit—when their opinions are asked—is a highly scientific physician, but they know not what his practical qualifications may be.

Now, it may be laid down as an incontrovertible axiom, that in no art can sound practice exist without principles or theory. Theory is the mental process which binds observed facts together, compares them with each other, generalizes, and deduces appropriate rules of practice. Observation of facts does not constitute any science. Facts are, doubtless, the elements of science; but the science itself does not exist until those facts have been brought together, sifted, compared, and great general principles deduced therefrom. An intelligent writer has, indeed, affirmed—at the first view most paradoxically—that experience and theory are the same thing; and that, as a matter of course, in saying that “you follow experience and not theory,” you declare your ignorance of both. If I repeatedly administer a certain medicinal agent, and as repeatedly notice a certain effect or sequence, I remember such sequence, and when I desire to induce a like effect, I administer it again. Now, the mental process which I execute in this case is a theory, and the result is practice founded on such theory. When a man, therefore, says that he follows practice, he says, by the same words, that he follows theory, and consequently, in the language of the writer in question, “all men in every rational action of their lives, are followers of theory, and may be divided into those who follow good, and those who follow bad theory;—the first sort always acting right—the second always wrong.”

It is owing to the erroneous notions which exist amongst the community on this subject, that empiricism prevails to such an extent; and that the people are ready to credit the assertions of any one who is hardy enough to affirm that he has discovered a nostrum, which is a specific for some particular malady. Individuals may derive lessons from experience, but masses never do; and hence it happens, that after the Dr. Rocks, and the Brodums, and the Solomons, with their boasted specifics, have fallen into oblivion, and are admitted to have benefited few, except the mercenary promulgators themselves and their agents, fresh actors
appear upon the stage; the people are as ready to be gulled as ever, and, jealous of the rights which they possess, claim the privilege of being so. The human mind, if not duly developed by education, is prone to credulity, and affects the mysterious; and although the general spread of knowledge may do much towards diminishing the evil, empiricism, in some form, will always probably stalk gigantically among us.

At no time, gentlemen, so well as at the commencement of lectures, can the importance of a due attention to principles be more appropriately impressed upon you, and under these feelings I have annually urged the advantage of reflecting, throughout the course, on the precepts and the inculcations laid down from the different chairs.

At first, it may not be easy for you to follow the professor in his train of reasoning. A short time is needed to acquire the art of listening effectively; but soon you will become enabled to comprehend, and often even to anticipate his conclusions; and your evenings at home will be profitably spent in thinking over the facts and arguments that have been presented to you in the course of the day, rather than in the vain, and, to my mind, altogether objectionable task, of reading over, in some text book, the same subjects. In one case, you learn to think. In the other, too often, only to read. In the course, too, of your reflections, new thoughts, new sources of difficulty arise, which can only be resolved by an appeal to the professor—always ready to aid you—and you become, in this manner, accustomed to meet emergencies, and even from the outset of your practice, to be undismayed by formidable cases, to which your attention may have been previously but little directed.

Abercrombie, in his work "on the Intellectual Powers," which I recommend to all of you, has well remarked, that "he who follows certain arts or practical rules, without a knowledge of the science on which they are founded, is the mere artizan or the empiric; he cannot advance beyond the practice-rules which are given him, or provide for new occurrences and unforeseen difficulties."

On former occasions like the present, and elsewhere, I have referred to numerous irrational and disgusting agents, frogs' spawn
—the white excrement of the dog, _album græcum_, as it was called—
the urine of the cow—moss growing on the skull of a dead man, &c. which were, at one time, admitted into the lists of the _Materia Medica_; these lists being made in solemn conclave by learned bodies—the colleges of physicians of the period—and not an article received except by the vote of a majority attesting, by their experience, to its efficacy; yet all these agents have been expelled by the same fiat, and expelled on other, and later, and I have no doubt—as the modes of observation and reasoning have been improved—on better experience.

The story related by Dr. Moore, of the French student of medicine, which is the prototype of many similar anecdotes, is not an overdrawn picture of the mode in which experience must have been registered in days of yore, and, I fear, is not wholly without its application in the present day. "A French student of medicine lodged in the same house, in London, with a man in fever. This poor man was continually teased by the nurse to drink, though he nauseated the insipid liquids that were presented to him. At last, when she was more importunate than usual, he whispered in her ear,—'for God's sake bring me a salt herring, and I will drink as much as you please.' The woman indulged him in his request; he devoured the herring, drank plentifully, underwent a copious perspiration, and recovered. The French student inserted this aphorism in his journal; 'A salt herring cures an Englishman in his fever.' On his return to France, he prescribed the same remedy to the first patient in fever to whom he was called. The patient died; on which the student inserted in his journal the following caveat: 'N. B. Though a salt herring cures an Englishman, it kills a Frenchman.'"

Observe then, gentlemen, facts, but let these be, as in every other science, the basis for your principles; ascend from facts to principles, by accurately tracing effects to their causes; and, where there is rational room to doubt, pause before you decide, until fresh occasion occurs to enable you to settle the question; for, as was wisely said by one of the most distinguished of medical teachers, now no more: "Without principles, deduced from analytical reasoning, experience is a useless and a blind guide." Meteorology is a branch of physical science in which we have
the wide distinction between facts and principles clearly shown. Observers have gone on registering the condition of the barometer, the thermometer, and the hygrometer ever since those instruments were first invented, and we have accurate lists announced monthly of the pressure, temperature, &c. of the atmosphere in the chief localities of the civilized globe; they have, as Dr. Samuel Johnson has sarcastically remarked, "registered the changes of the wind, and died fully convinced that the wind is changeable;" yet notwithstanding the labours of the myriads of observers, scattered over the earth, and notwithstanding that "vapours, and clouds, and storms," have been the theme of investigation — of late, more especially — both here and elsewhere, how few are the principles that can be looked upon as established, and how dispiriting the reflection, that the results of the toilsome industry of so many observers, which — otherwise employed — might have been most profitable, can only be regarded as the products of so much time misspent. Nor do the records of our own profession afford a picture much more consolatory. For a century, the numerous journals of Europe, and for a more limited period of this country, have presented an array of observed cases — or of "observations," as it is becoming the fashion to term them — which would excite astonishment were their numbers merely recorded. Assuming that one of the oldest journals of England, in its various phases, was in existence sixty years, and that only five cases of original communications appeared monthly, in each number, — the amount for sixty years, in this journal alone, would be three thousand six hundred cases; and perhaps not more than twenty, if so many, of these are now referred to as of any value.

The world, gentlemen, has always been engaged in the collection of facts, and we deceive ourselves if we think, that we are paying more attention to the subject than many of our ancestors: with the progress of time, the human intellect has indeed become developed; our habits of observation and reflection have improved, and I doubt not will continue to do so; so that our posterity will regard us, perhaps, in the same light as we regard our comparatively benighted ancestors.

"Questionless," says Glanvil, who wrote upwards of 160 years ago, and was one of the founders of the Royal Society of London, "those first inventions, which have in these latter ages, altered
the face of all things, were as ridiculous to former times in their naked proposals, and mere suppositions. To have talked of a new earth to have been discovered had been a romance to antiquity, and to sail without sight of stars or shores, by the guidance of a mineral, a story more absurd than the flight of Daedalus. That men should speak after their tongues were ashes, or communicate with each other in different hemispheres, before the invention of letters could not but have been thought a fiction. Antiquity would not have believed the incredible force of our cannons, and would as coldly have entertained the wonders of the telescope. In these we all condemn antique incredulity; and it is likely posterity will have as much cause to pity ours."

"But yet," he adds, "notwithstanding this straightness of shallow observers, there are a set of enlarged souls, that are more judiciously credulous; and those who are acquainted with the diligent and ingenious endeavours of so many true philosophers, will despair of nothing."

Yet, gentlemen, although we are amazingly improved in our habits of noting and registering facts, I am not sure if the more modern methods of observing are not calculated, with all their advantages, to be productive of some evil. The school of Louis, to which we owe many excellent monographs on individual diseases, urgently impressing, as it does, upon the tyro, the necessity for the most careful observation of the phenomena presented by disease, is apt to leave the impression, that this is all the practitioner needs, and to convey the too exclusive idea, that self observation is alone necessary to make the accomplished pathologist and physician—an ideal rock on which the profession has struck for ages, and which has greatly retarded the onward course of medical science.

All must accord with the disciples of that pains-taking school, that strict and accurate observation is needed to diagnosticate the precise pathological condition; but all must equally admit, that this diagnosis is only preliminary to the great object of our investigation—Therapeutics, or the mode of treating disease. On this object the concentrated knowledge of anatomy, physiology, pathology, materia medica, and chemistry, must be directed. Observation furnishes but the materials for thought, and sound Thera-
peutics requires both. To treat disease understandingly is the end and aim of the profession which you have embraced, and observation—accumulated observation—forms an essential element, but still only an element.

As regards the different medical doctrines, which the mass of the profession have always found it easier to follow than to think and to act for themselves, and which have been a common theme with the satirist—it may be remarked, that no one has been promulgated without its propounder, at the same time, exhibiting, or endeavouring to exhibit, an array of facts, or a physiological foundation for it, faulty as such facts or foundation may have been.

Within our own times, we have had, at one period, Brunonianism or Brownism, and at another the opposing doctrine of redundant stimulus: then, Broussaisnism and homœopathy, the follies of the so called animal magnetism—for it is of the follies alone I speak—and the vagaries of transcendental physiology, have appeared simultaneously or in succession upon the stage; some have already fretted their hour and vanished, and the others must inevitably follow, yet not without inculcating useful lessons, and leaving behind them much that is good.

By exclusive Brunonianism or Brownism, for example, which held, that most diseases are owing to deficient excitation, the reflective observer was taught to dispel the dread, which had been generally indulged in regard to the exhibition of stimulants in many morbid conditions. By exclusive Broussaisnism, he was reminded to watch more closely the physiological acts of the frame, and especially to examine more intimately into the pathological states of the lining membrane of the alimentary tube, and their association with the various functions of the organism.

Homœopathy has reminded him, that many morbid conditions do not require the administration of such active remedies as had been supposed, and it has suggested to him to place more reliance on those instinctive actions of the frame, which are concerned in the reparation of injuries, and without the aid of which all our efforts would be vain.

By animal magnetism he has been more and more convinced of the extensive influence which may be exerted on the functions
through the agency of the imagination, and been struck with the various irregular actions that may be induced in the nervous function by properly directed impressions made on the senses; and from the very absurdities of transcendental physiology, he has been led to investigate more thoroughly the range of functions as executed through the whole class of organized beings, and to deduce therefrom results tending to augment our knowledge of the laws that govern the formation of organized bodies.

In short, from every passing sect and system, we are able to cull something that is good; the chaff has to be discarded, but we learn to isolate and to prize the grain.

A more careful observation of healthy and morbid phenomena, and a better method of reasoning, may prevent the indulgence of so many theories and wild hypotheses as have prevailed in former periods of medical history, but the human mind is so prone to follow implicitly in the footsteps of bold, ingenious, and dashing innovators, that we have no certainty that the same occurrences may not again present themselves in other shapes, and meet with more or less of passing attention.

In a preliminary lecture of this nature, gentlemen, it is not uncommon for the Professor to expatiate, among other matters, on the importance of your being well acquainted with the learned languages—the Greek, from which most of our scientific terms are formed, and the Latin, which is in many countries the language of prescriptions. I shall not dwell upon the value of this knowledge—which I would be one of the last to contest—for the simple reason, that with most of you, the time has already passed, when the attainment of a knowledge of the dead languages was practicable.

Our office is to teach you as we find you, and I may offer you, who stand in need of it, the consolation, that any extensive knowledge of either of those languages, although most desirable, is not indispensable; and that moreover we have examples of persons of unwonted strength of mind and application, who have been enabled, after the commencement of their professional studies, and even after they have entered upon the active duties of their profession, to acquire a considerable knowledge of the ancient lan-
guages, and even to become distinguished for their learning, whilst again, we have many signal examples, which show, that professional distinction may be gained where the classical attainments have been feeble—indeed almost null.

Similar remarks are applicable to studies collateral to a branch, which I have undertaken at the request of the Board of Trustees, in addition to the others that were assigned to my chair. I mean Materia Medica.

The different departments of Natural Science are so associated, that it would be well if we were acquainted with them all; and, accordingly, in the study of Materia Medica, it would be highly desirable that the student should be acquainted with Natural History and Botany, before he presents himself here, and before even he enters the office of his preceptor; but this is very rarely the case; and it is, I repeat, with the student as we find him that we are concerned, by whom the tedious descriptions of the Naturalist would not be understood, or if understood, could not be remembered. What abiding information could I convey to your minds, were I to inform you—in language well told in the excellent Dispensatory of Messrs. Wood & Bache, to which I have recommended you to apply in the progress of your studies—that the “Cantharis, Spanish Fly or Blistering Fly, is in the class Insecta; order Coleoptera; tribe Cantharidae of Latreille; and that its general characters are Tarsi, entire; Nails, bifid; head not produced into a rostrum; Elytræ, flexible, covering the whole abdomen, linear, semi-cylindric; Wings perfect; maxillæ, with two membranaceous laciniae, the external one acute within, subuncinate; antennæ longer than the head or thorax, rectilinear; the first joint largest, the second transverse, very short; maxillary palpi larger at tip;”—all of which, as I have said years ago, must necessarily be impenetrable to one whose attention has not been largely directed to the study of the Natural Sciences; and such is the case with almost every medical student.

Doubtless, gentlemen, it would be a desirable accomplishment, were the student to be acquainted with all this, as well as with the Natural History of the animal whence he obtains his castor and his musk, and did he know the botanical relations of the plants whose preparations he prescribes; but such knowledge,
however desirable, is not more indispensable than is a profound knowledge of the dead languages. Except, indeed, as regards indigenous articles, the important practical knowledge concerns the drug, as the practitioner receives it from the herbalist or the druggist; and even here he is generally compelled to trust to the knowledge and the honesty of those tradesmen. The same remarks, indeed, apply to articles of Dietetics. It would be an interesting piece of knowledge to the consumer to be acquainted with the natural history of the animals that furnish his beef, his mutton, or his pork; but we all know that he has no practical difficulty in appropriating them to his dietetic necessities. The householder,—or more frequently a more humble functionary, the cook,—passes judgment on the qualities of the beef, the mutton, or the pork; or full confidence is reposed in the butcher who supplies them.

"The different professions," observes a profoundly educated physician of the present day, and a lover of learning,—Dr. Latham,—"have one way of glorifying themselves, which is common to all. It is by setting forth a vast array of preparatory studies, and pretending they are indispensable in order to fit a man for the scientific exercise of the practical duties that belong to them. I have heard lawyers make such a mighty parade of the things which a man must know before he is called to the bar, that, according to the average of human capacities, not one in fifty has the smallest chance of mastering them; and of those who do master them, not one in fifty can employ them to the uses for which they are intended. I once saw a list of books recommended by a professor of divinity, to the study of those going into holy orders. They were more numerous than the majority of even studious men ever read in their whole lives; yet these were a few prolegomena, introductory to the office of a parish priest. We, too, (says Dr. Latham) conceive that it befits our dignity to magnify ourselves at certain seasons. The commencement of a session is usually the time chosen; and then what a crowd of wonderful things are marshalled by authority around the entrance of our profession! And through this crowd, it is implied, every man must press his way before he can obtain ad-
mission, as if we wished to guard and garrison ourselves against invaders, rather than to gain good and useful confederates! In the affair of literature are reckoned Latin, and Greek, and French, and Italian, and German. In the affair of science, mathematics, and metaphysics, and mechanics, and optics, and hydraulics, and pneumatics, mineralogy, botany, zoology, and geology. Such are the portentous forms that guard the threshold. But further onward are placed anatomy, human, and comparative, and morbid; physiology and pathology; chemistry, general and pharmaceutical, and materia medica; surgery, theoretical, clinical, operative, and ophthalmical; medicine, theoretical, clinical, obstetrical, and forensical. The general display of objects is formidable enough, but not half so formidable as their representation in detail. Of the great cosmogony of medicine there are several departments, and each professor never fails to magnify his own by counting the cost of time and labour, which you must be prepared to bestow, if you wish to make any progress in it. Haller (perhaps such a one will say,) surely knew what anatomy is, and how much goes to make an anatomist, and Haller has estimated the cost at twenty years of time and labour."

"Now," says Dr. Latham, and I accord with him, "I am persuaded that there is not in the profession, an individual who comes up to this standard, which (it is implied,) all ought to reach. If all medical students had fifteen or twenty years at their disposal, and could dedicate them all to professional education, we might pardon a little innocent declamation, in displaying the rich and varied field of knowledge about to be disclosed to them; but, even then, sober truth would compel us to confess, that the field so pompously displayed, far excelled in extent what the best minds could hope to compass, even in fifteen or twenty years. When, however, we recollect what space of time the majority of men so addressed really can give to their education, the whole affair becomes inexpressibly ludicrous. * * * It is a truth, that the whole circle of the sciences is required to comprehend a single particle of matter: but the most solemn truth of all is, that the life of man is three score years and ten." "You may recommend," Dr. Latham subsequently remarks, "that every man, before he enters upon
the study of physic, should obtain the best general education within his reach, but you must specify nothing as absolutely necessary but what bears immediately upon professional use."

It is not my intention, gentlemen, to glorify myself, or the departments which are assigned to me. I may merely observe, that they are susceptible of a beautiful and consistent order of arrangement: after the functions of an organ have been described, the indications for restoring the pathological aberrations to the healthy condition, and the agents for fulfilling those indications, constituting, in the aggregate, the materia medica—with the general properties, and the virtues of all these agents, so far as they bear upon professional use—naturally succeed.

For example—after the functions of the stomach and intestines have been carefully demonstrated, we shall consider the general agency of emetics and cathartics, which affect those parts, pointing out their various adaptations to disease; and afterwards taking up the different articles of the materia medica belonging to those divisions, and exhibiting them to you for your own inspection, we shall inquire into their history, so far as is necessary for our purpose, their sensible properties, their effects upon the economy, in health and disease, their officinal preparations, and their different modes of administration, and doses.

The filling up of this scheme, beautiful and consistent as it is, may fail: should it do so, the apology must be want of ability on my part; it shall not sink for want of industry and zeal. Whatever, indeed, my colleagues and myself are capable of accomplishing, I can promise for all of us. Our duty—and a pleasing though responsible one it is—is to enable you to form your judgments on the varied topics that will have to be presented to you. It is our province to explain to you the reasons on which all our inculcations are founded. We do not ask you to swear in the words of the master, as of old, but we recommend you to attend to our facts; to weigh our reasonings; to listen to the dictates of rational Therapeutics, of rational experience; to prove by repeated trials, numerically if you will, the truths of our affirmations; and to endeavour carefully to separate the coincident from the consequent; satisfied, that by this method of expanding the intellectual
and moral endowments of the student, we are fulfilling his best interests, by rendering him—what is one of the richest rewards to a faithful preceptor—a zealous, liberal, and efficient promoter of the elevated profession he has embraced, an honour to his Alma Mater, and an ornament to society.