SMITH

DISCOURSE DELIVERED ON THE OCCASION
OF THE TWENTY-SECOND ANNIVERSARY
OF THE N. Y. ACADEMY OF MEDICINE

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NOVEMBER 11th, 1869.

BY

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# ANNIVERSARY DISCOURSE.

*Mr. President, Fellows of the New York Academy of Medicine, and Gentlemen:*

A PLEASANT custom, sanctioned by the antiquity of its observance and nurtured by affectionate regard, is the celebration of birthdays, or of events which have proved peculiarly interesting in the family circle. Nations appoint holidays upon which to commemorate important epochs in their history. Scientific bodies set apart occasions upon which to revert to the principles of their founders, review their achievements, and become animated with new impulses for the future.

Philosophers of the Darwinian school may contend that "all the organic beings which have ever lived on this earth have descended from some one primordial form into which life was first breathed;" but when these same philosophers are associated with their confreres believing in the plurality of origin of species, they waive the theory as relating to the diverse origin of learned bodies, and each society claims its distinct origin, its distinct course, and prides itself on its individual struggles and triumphs in unravelling the arcana of nature.

Different species of societies, though of the same

generic character, are conducive to the interests of science; they excite to exertion, and stimulate a generous rivalry. Unbiassed by envy or prejudice, such associations willingly yield the meed of praise to successful cotemporaries, and each should prefer to borrow light from a distant orb rather than be imperfectly illuminated by a meteor in its own atmosphere.

Professor Haughton, when visiting Oxford in 1868, and addressing the British Medical Association, remarked:—"Our brothers in Oxford, like the Athenians at Syracuse, have gone on board the fleet, while we watch them from the shore, sympathizing in the sea-fight; as they win, we shout; when they fail, we weep."

Mr. President and Fellows, we have not assembled this evening either to test with parliamentary acumen medical logic with medical logic in regard to any obscure dogma, or to unfold any new fact in science, or to expose any recent sophistry, or to scrutinize microscopically healthy or diseased tissues;—these are occupations in which we are ordinarily engaged. Nor are we gathered together, as occasionally it becomes necessary, to mourn the loss of a deceased Fellow, to eulogize his private character, to enumerate his original investigations, to describe his numerous successful contests with disease.

We are summoned this evening by special invitation to celebrate the twenty-second anniversary of this Academy. Once a year, dropping professional discussion, we with unanimity commemorate the birthday of an institution which is fondly cherished by ourselves, which is held in estimation by this com-

munity, and which is regarded by kindred societies at home and abroad as a prominent exponent of American medical science.

Thanking your Council for the honor conferred in selecting me to address you on this interesting festival, I feel it necessary to crave your kind indulgence. Circumstances unforeseen have interrupted the preparation of my theme, and I shrink from a duty which under the most favorable conditions I could but very imperfectly have performed.

After alluding for a few moments to our Academy, I shall endeavor to exhibit the inherent difficulties which have always beset medical progress; to present the triumphs over many of them which our profession has accomplished; to prove that medical science has been developed as rapidly as could have been expected, and that it is now keeping step in the onward march of its sister sciences.

As on these anniversary occasions it is not expected that the discourse will be of a strictly didactic and scientific character, I shall in illustrating my subject quote the words both of professional and non-professional writers, and shall not hesitate to borrow thoughts even if expressed either in rhythmical spondees and dactyls or in modern verse.

It is with emotions of pleasure and of pride that we revert to the founders of this Academy, and to the bright career upon which this society entered immediately after its formation.

Its inception is ascribed to the late Dr. Alexander H. Stevens, in 1846, who on announcing it to his medical associates was soon aided by Watson, Parker, Mott, Isaac Wood, Stearns, Smith, and others in

making the ideal a reality. Minerva, at whose shrine our medical forefathers worshipped, sprang into immediate maturity at the time of her birth, and was forthwith received a compeer of her father Jupiter into the assembly of the gods. This Academy, fostered by the influences we have mentioned, was instantly assigned an honorable position in the brotherhood of scientific associations.

The cordial feeling which it was hoped would be enkindled in the medical profession of this city by the formation of this body was not long in being developed—

> "Friends to congratulate their friends made haste,
> And long-inveterate foes saluted and embraced."

Scarcely a ripple of agitation has occurred to disturb fraternal equanimity, and to-day we find associated about three hundred of the leading medical men of this metropolis, liberal in thought and untrammelled by clique, amicably co-operating in the promotion of medical science. To the coffer of medical philosophy each contributes according to his ability. One may bestow but a mite, another give more munificently; but the accumulation is equally divided among us; and whether our offering has been small or large, we leave these halls almost alike fitted for the important duties devolving upon us.

Nor are we less generous to others than to ourselves. Are new facts either in physiology, pathology, therapeutics, or surgery here enunciated, forthwith through official publications and medical journals they are given to the world. The intelligent

physician whose lot is cast either under the equatorial sun, or amid arctic or antarctic frost, or in temperate zones, is thus enabled to freely employ the information emanating from this body in relieving the sufferings of those under his care, whether of Americans, Caucasians, Mongolians, Ethiopians, or Malayans. How different the conduct of charlatans, who assume to themselves individually preternatural gifts, and proclaim their secret nostrums as sovereign panaceas for the healing of the nations!

But the high purpose which actuates this Academy is the same as that which animates the members of our profession throughout the world, and a congeniality of taste binds its widely scattered members into as close a confederation as though leagued by a sacred oath of covenant.

Of the thirteen Fellows who have been elected from time to time to preside over this Society, nine have been removed by death. Stearns, Francis, Mott, Wood, Stevens, Cock, Joseph M. Smith, Batchelder, and Watson, whose terms of office have occurred in the order enumerated, no longer are heard in our councils, but their examples still live and will survive through future generations. Our library contains their writings, our archives preserve their memoirs, while our hearts, warmed by the recollection of their personal virtues, bid us repeat orally to juniors their eminent qualities, that tradition may combine with written testimony in transmitting to posterity correct histories of their lives.

It has been said that the study of medicine has a tendency to develop in the physician views of *materialism*. This Academy may be cited to disprove

such assertion; all those I have mentioned have died while rejoicing in a Christian faith, and sustained by a Christian hope. The majority of them, during their entire lives, were known as consistent believers in Divine truth, and several had filled conspicuous positions in the religious associations of our country. I recall in this connection the words of Bacon:—"A little philosophy inclineth a man's mind to atheism, but depth in philosophy bringeth men's minds about to religion."

Of our annual orators, Francis, Manley, Smith, Stewart, Swett, and Watson have passed away. Their discourses have recorded the merits of predecessors and cotemporaries; to-night we pay homage to their memories.

Nor should we forget that since our last anniversary O'Reilly, Enos, Stevens, and Guilford have been removed by death—men who would have adorned any calling, and of whose characters and labors our profession has had reason to be proud. On the graves of our deceased Fellows we this evening will set out the amaranth and the ivy, lest Time should have frosted those we had before planted.

There are many in each profession gifted with genius, but who, by reason of an innate modesty, shrink from taking the lead, preferring to follow in the wake of others who, perhaps, are less competent than themselves. There are many who have not the time, possibly not even the inclination, to examine the minute intricacies of science—

> "With stumbling steps along the dubious maze,
> Tracing with half-seen thread the darksome ways."

Scattered through this and other lands are to be found innumerable physicians who are prevented from prosecuting either the higher or collateral branches of medicine, but who imbibe the essential principles of our profession, are conscientious and successful practitioners, and who are as deserving of the regard of the public as their more distinguished associates. It is probable that many a metropolitan expert, perplexed by the expectations of his skill, has oft-times quoted the line of Addison :—"The post of honor is a private station."

It does not necessarily follow that those occupying prominent positions, either in Church, State, or Science, are possessed of very unusual ability. Accidental circumstances of birth, wealth, and favoritism may give notoriety, if not true reputation, to those possessed of comparatively moderate mental powers. No adage of Shakespeare contains better truth than the one—"Some are born great, some achieve greatness, and some have greatness thrust upon them."

While metropolitan experience largely contributes towards attaining proficiency in various departments of medicine, nevertheless history affords notable examples of those who have acquired renown, and who have advanced the interests of our profession, though they have chiefly resided either in country districts or in the smaller towns or in cities but who have not enjoyed extended hospital advantages. As instances I would cite Hippocrates, Galen, Sydenham, Scarpa, Jenner, and Abercrombie.

There are many whose sphere of labor and of duty is confined to a small precinct, and whose names are

scarcely mentioned beyond the confines of a county, but who are possessed of as cultivated tastes and of as superior genius as their more illustrious cotemporaries. Circumstances have not favored their development into the world of letters, but in the communities in which they reside they are regarded as priceless jewels, and their names cherished as household words.

It is not to be expected that those who are very actively engaged in the practice of their profession can have extended leisure to devote to original research, and the moments devoted to such labor are liable to be disturbed by thoughts reverting to usual vocations or to other subjects. We are amused at the picture of the absent-minded celibate philosopher, who, in his secluded study, while eagerly perusing his book, sits bending over the fire—the bubbling saucepan containing his watch while the egg is grasped securely in his hand.

Busy men in various walks of life have difficulty in concentrating their minds on fixed subjects, more especially upon abstruse topics. Luther even complained of the great difficulty he experienced in engaging for a long season in serious thoughts, and has said:—"Let any one try how long he can rest on one idea he has proposed to himself, or take one hour and vow that he will tell me all his thoughts. I am sure he will be ashamed before himself, and afraid to say what ideas have passed through his head, lest he should be taken for a mad dog and be chained." He also states that St. Bernard once complained to a friend that he found it very difficult to pray aright, and could not pronounce the Lord's

prayer once without a host of strange thoughts. His friend was astonished, and gave it as his opinion that *he* could fix his thoughts on his prayer without difficulty. Bernard offered him the wager of a fine horse on condition he should commence forthwith. The friend commenced, "Our Father," etc.; but before he had finished the first petition it occurred to him, if he should gain the horse, whether he would also receive saddle and bridle. In short, he became so entangled in his thoughts that he abandoned his effort for the prize. If such great and good men have difficulty in riveting attention for a few moments upon important devotional exercises—and who of us, if equally candid, but could plead guilty to the same inadvertence—how much more difficult is it to abstract the mind from social and domestic pleasures and cares, and from professional perplexities, and employ our limited leisure in exploring the hidden intricacies of science.

It is a fortunate circumstance for humanity that facts in medical philosophy, demonstrated by individual investigators favorably situated for close application, can be utilized by all the members of the healing art. Practical medical literature has nevertheless depended for many of its most important contributions upon those actively employed in clinical observation, and not alone upon those exclusively busied in physiological and pathological explorations.

A considerable amount of systematic scientific research can be accomplished if the desire for it is pressing. Each day is a complete cycle—life a repetition of such cycles. The habits of a day form the habits of a life. However urgent may be the occu-

pations, each day presents opportunities for reflection and reading. As memory fails to retain many facts of observation, and many thoughts derived from others, it seems almost essential to acquire a habit of daily noting the more significant for future reference. Unoccupied moments may be employed in analyzing such accumulation, and analyses may inspire unexpected and valuable syntheses.

The importance of each day's labor can scarcely be over-estimated. We are reminded in this connection that even during the patriarchal period old Jacob numbered his life by days, and that Moses desired to be taught this point of holy arithmetic, to number not his years, but his days.

The elder Scipio, whose military achievements gave him a foremost rank among the Roman generals, and have perpetuated his name to the present day, devoted the time disengaged from military business to the study of literature, and was accustomed to say, "that he was never less at leisure than when he was at leisure."

Excessive devotion to science and belles-lettres, however, by favoring sedentary and secluded habits, not only may jeopardize the health, but also may lead to other insalutary or undesirable conditions. It favors either on the one hand celibacy, or on the other an abstinence from many of the duties and pleasures associated with conjugal and social life. From the days of Socrates to the present time how many *literati* might be cited as victims of connubial wretchedness! Should we decipher the causes of such domestic infelicities it would doubtless be found that they are not generally of an im-

moral nature. Intense enthusiasm in the pursuit of a favorite study has induced neglect at the family fireside, perhaps a disruption of the marital relationship. As a *Cœlebs* it may be but becoming in me to admit that the experience of the great mass of mankind is in favor of married life, and the numerous happy Benedicts around me indicate that they have so judiciously systematized their hours for study, for business, and for relaxation, that they have been aided in their explorations rather than retarded by the wise copartnerships they have formed.

It might be expected that the members of that profession whose aim is the prevention and cure of disease, might enjoy an exemption from morbific influences and attain unusual longevity. The deaths in this Academy forcibly illustrate the fact that we bear no charmed lives, and that we in common with others must incur the disasters which have been entailed upon our race from eating

> "Of that forbidden tree, whose mortal taste
> Brought death into the world."

Science outlives generations—we inherit doctrines from our fathers; these, we may hold, reject, or modify; but we are shortly called to bequeath both the inheritance and the fruits of our own labors to a posterity perhaps restless for the bequest.

> "Art is long, and time is fleeting,
> And our hearts, though stout and brave,
> Still like muffled drums are beating
> Funeral marches to the grave."

It is a noteworthy fact that the average age of our departed Presidents, at the time of their de-

cease, was seventy-five years; excluding Watson, who died prematurely of malignant disease in his fifty-ninth year, the average age was seventy-eight years. Our presiding officers have been as pre-eminent for their longevity as for their moral worth and professional attainments.

Though we have been called upon to part with so many of our brilliant and conspicuous members, there is, as yet, no evidence of dwarfed mental power or of hebetude in this Academy. It is not philosophical to believe that the human race is, at present, very materially degenerating. Such belief, however, has been entertained from time immemorial, even when there was no necessity for such opinion. Solomon endeavored to refute such a prevalent idea in his day, by these words:—"Say not thou, What is the cause that the former days were better than these? for thou dost not inquire wisely concerning this." In turning to profane history we find it recorded of Ægis, the Lacedæmonian, that on hearing an old man regret that the former laws and customs were abolished and supplied by worse, insomuch that the State and habit of Sparta were totally subverted and turned topsy-turvy, he gravely answered:—"Then things proceed in their regular and proper order: for I remember, when I was a boy, to have heard my father say, that there was, at that time, a total subversion of things: now, if they are inverted again, they are restored to their pristine state."

A learned and eloquent divine of this city has remarked:—"It amuses us when the old gouty count in Gil Blas persists in saying that the peaches were not so good as they were in his boyhood. . . .

Bad as the times may be, they are better and not worse than those behind us, and the poorest use to which we can put our time and faculties is to be querulous over those affairs to which we are personally related, and to stand in what is called the 'barrenness of these degenerate days,' Janus-faced—one countenance, that which is turned to the future, elongated, scowling, and sombre; while that which looks to the past has an expression of wishfulness, smiles, and satisfaction."

We are not justified in regarding our own generation as a *degeneration;* and I am sure that on viewing the yearly progress made in medical science, any one at all conversant with the subject will concede that we belong to a progressive profession. We frankly admit our inability to explain many physiological phenomena, and our shortcomings in reference to therapeutics; but we have not as yet reached the acme of professional wisdom, nor has any department of human knowledge culminated into completion.

An eminent English physician recently remarked, that he "entertained a profound respect and reverence for all honest laborers in search of truth, whether they have preceded us by twenty years or by two thousand years; and an unwavering confidence and faith in the future that lies before the science of medicine. We traverse a sea mapped with imperfect charts, but assured of a safe guide in our compass and stars, but we cannot afford to neglect a single rock or shoal, buoyed for us by the skill and care of those that have preceded. Let us follow their example and mark with conscientious care, for

our successors, the dangers we ourselves discover and escape."

But in buoying a shoal, clearing a channel, or erecting a light-house, many a valuable life may be lost. How many have there been in our profession who have sacrificed their lives while elucidating the mysteries of physiology, pathology, and therapeutics, to say nothing of the hecatombs of those who have fallen while fearlessly wrestling with pestilential disorders.

We have seen that a number of our academicians have enjoyed longevity, but there are many who are not fitted, physically, to endure unusual mental labor. Such we have had among us, and death has snatched them while eagerly prying into the secrets of life and the mysteries of the charnel-house. There are others in whom you can observe the pallid cheek, the dimmed eye, the fluttering pulse, the sensitive nerve, occasioned by their devotion to science.

While mere curiosity may prompt a few, and a desire for reputation and wealth incite others to relinquish many social enjoyments in the pursuit of knowledge, many are animated to intense application in order that there may be conceived in the "womb of the *pia mater*" some thought or plan of action which will serve to ameliorate the condition of suffering humanity. Industry and constant devotion must characterize the philosophical explorer, and the earlier in life attention is riveted upon original research, the greater will be the scientific achievements. "With youth at the prow and pleasure at the helm," our neophytes would permit medical

philosophy to languish and dissolve into a chaos of chimerical hypotheses. While we mourn our distinguished dead, we have reason for congratulation in the possession of Seniors who are ripe in years, learning, and honors, and of Juniors who, with emulative zeal, are pressing forward in their footsteps. The Seniors we recognize as having donated a full measure of ten talents to the Academy, a part received by inheritance and a part the result of their own labors; while the Juniors accept the trust determining not to repose on the patrimony and gift, but to augment it tenfold, and when in turn they retire from the field of action to transmit the accumulation to their successors.

From the time of Hippocrates to the present day, our profession has regarded the prevention of disease as its noblest object. The great mass of the world, however, do not look to us so much for the means of prophylaxis as they do for the relief of their maladies.

A *fear of death* is naturally implanted in man's bosom, though to die is as natural as to be born. Even the pure and holy may shrink from entering an unknown world. Some there are, who, tired of life, desire dissolution as a relief from trouble. Others have a morbid fear of death. The majority of physicians might say with Scott,

> "By many a death-bed have I been,
> And many a sinner's parting seen,"

and could bear testimony to the fact that during the last stages of disease, when there is consciousness, there is either calm resignation, a joyful hope, or

again, in the desire to escape suffering, fear of dissolution is removed. We seldom encounter scenes of mental horror occasioned by the approach of the king of terrors. It is chiefly while in health or in the early period of disease that fear of death is at its acme. The uncertainty regarding the time and method of death enhances the dread of dissolution.

The Scriptures say, "All that a man hath will he give for his life." The English dramatist has drawn the picture in this wise:—

> "The weariest and most loathed worldly life
> That age, ache, penury, and imprisonment
> Can lay on nature, is a paradise
> To what we fear of death."

Death, which is thus so dreaded, we observe at every period of existence, commencing with the *fœtus in utero*, at a time so beautifully described by Cowley in his tribute to Dr. Harvey, when

> "The untaught heart begins to beat
> The tuneful march to vital heat,"

and we encounter through the various ages of life until that stage delineated by Shakespeare as

> "second childishness and mere oblivion,
> Sans teeth, sans eyes, sans taste, sans everything."

It is said in the Scriptures, "Man that is born of a woman is of few days and full of trouble." Again: "The days of our years are threescore years and ten, and if by reason of strength they be fourscore, yet is their strength labor and sorrow."

We boast of the advances made in medical science, and can scarcely repress a smile when we think of

the sages of antiquity consulting the physicians of their time. But nature,

> "Which hath an operation more divine
> Than breath or pen can give expression to,"

was scarcely less beneficent in the mythological age than she is in the nineteenth century, and consequently we read of instances of longevity among the ancient philosophers.

Cicero, in his treatise "concerning old age," informs us that Plato died while writing, in his 81st year; that Isocrates wrote his book the Panathenaican in his 94th year, and lived five years after, whose master, Gorgias, the Leontine, completed 107 years without ceasing from his labors. Of Sophocles he records, that he "wrote tragedies up to the period of extreme old age; and when, on account of that pursuit, he seems to be neglecting the family property, he was summoned by his sons into a court of justice, that as, according to our practice, fathers mismanaging their property are wont to be interdicted their possessions, so, in his case, the judges might remove him from the management of the estate as being imbecile. Then the old man is related to have read aloud to the judges that play which he held in his hands, and had most recently written, the Œdipus Coloneus, and to have asked whether that appeared the poem of a dotard; on the recital of which he was acquitted by the sentences of the judges."

There is no reason to suppose that these venerable men passed through life without encountering various disorders; on the contrary, it is probable that—

"over them triumphant, Death his dart
Shook, but delayed to strike, though oft invok'd."

Were the instances we have given of common occurrence in ancient times, our profession might hesitate to compare practical experiences with their medical brethren of the olden days; but on consulting the tables of Ulpianus, founded on observations of 1,000 years, we learn that the mean term of Roman life was only 30 years. This was the average length of life at the commencement of the Christian era, and its brevity has been attributed to the licentiousness prevalent in Rome during the period referred to.

On examining the tables of Madden, Dunglison, and others, we learn that in modern times there have likewise been examples of unusually long lives in various callings. Old Parr lived to the age of 152 years; Jenkins, of Yorkshire, to 169 years; and Walpole tells us of the Countess of Desmond, who—

"died at the age of one hundred and forty,
From over-indulgence in ways that are naughty."

The latter personage, remarkable for her activity until almost the close of life, was outstripped in length of days by Lady Vaughan, who, according to a tomb-stone in Conway churchyard, died in 1766, at the age of 192 years. Such examples of longevity, however, are as rare at the present time as they have been either in recent or in remote periods. I exclude from present consideration the patriarchal epoch.

The occupations of life inseparably connected with advanced civilization seem inimical to health.

Mental tension seems almost a necessary concomitant of civic associations. This has doubtless ever been the case. In all ages it has been remarked that the long-continued and extraordinary exertion of the mental faculties has generally, directly or indirectly, induced disease. Ovid says of the student, "*pallor in ore sedet, macies in corpore toto.*" Frederick the Great expressed the opinion that "man seems more adapted by nature for a postilion than a philosopher." Dr. Dickson, of England, in writing in the early part of this century, remarked: "Unfortunately the physical is too often in the inverse ratio of the intellectual appetite, and with the *Bulimia Doctorum* there is too frequently associated a stomach as *weak* as *blotting-paper*, to use Vogel's just but rather ludicrous comparison."

As an instance of the selection and recommendation of an unwholesome dish as an article of diet, I recall the fact that the Rev. Sydney Smith has given a recipe, in verse, for dressing salad, which, if followed and taken, is almost capable of inducing a new disease for our nosology, and yet the receipt ends in this wise—

> "O great and glorious! O herbaceous treat!
> 'Twould tempt the dying anchorite to eat;
> Back to the world he'd turn his weary soul
> And plunge his fingers in the salad bowl."

The infirmities of genius are too often attributable to derangements of the digestive organs, partially induced by improper food and drinks.

If our dyspeptic literary friends cannot mend their sedentary and other insalutary habits, would it not be wise for them to adopt a modification of the diet

ascribed by Fletcher, in the Spanish Curate, to the miser, who—

> "grew fat by the brewis of an egg-shell,
> Would smell a cook-shop and go home and surfeit,
> And be a month in fasting out that fever?"

We do not admit as a physiological fact that mental culture must be associated with asthenia, though we unfortunately often find them concurrent.

Shakspeare, who so thoroughly understood human nature, has, in various passages, expressed the fact that extreme physical vigor and a high grade of mental energy were generally not observed in the same individual. For example, he represents Cæsar as speaking of Cassius in these words:—

> "Would he were fatter,
> For if my name were liable to fear,
> I do not know the man I should avoid
> So soon as that *spare* Cassius. He reads much,
> He is a *great observer*, and he looks
> Quite through the deeds of men."

And again he has elsewhere remarked, as a warning to those whose habits favor obesity, that

> "Fat paunches have lean pates, and dainty bits
> Make rich the sides, but banker out the wits."

The same author has further shown what we have also sometimes recognized, that Fortune

> "either gives a stomach, and no food,—
> Such are the poor, in health; or else a feast,
> And takes away the stomach,—such are the rich;
> They have abundance, and enjoy it not."

It must be confessed that a nation in a state of advanced civilization generally suffers more or less physical degeneration. Many of the occupations of life connected with such condition are detrimental to health; many pursuits which in themselves are not injurious, may become so by over-attention to them, as becomes almost necessary amid the competitions and rivalries incident to civic congregation. The extremes of poverty and riches are encountered. Poverty breeds disease among its victims, and steeps them in the grossest sensualities. Riches often enervate by encouraging refined luxury and debasing debaucheries.

In relation to our own country it has been said by the late Dr. Joseph M. Smith :—"That the national character of the United Americans is still in its formative stage; and that so it must remain for yet an indefinite period; and especially so long as large foreign additions are made to the native population. What results may be looked for, when elements so numerous and so diverse meet and react on one another? Is it probable that the varieties of the five races of Blumenbach, will, after being long associated on our soil, lose their distinctive peculiarities, and acquire characters which shall mark them as a new variety of mankind? It is a principle recognized by physiologists, that, to use the words of Carpenter, 'the union of *varieties* has a tendency to produce a race superior in energy and fertility to its parents,' or, as he otherwise remarks, 'the mixed race is generally superior in physical development to either of the parent stocks.' Now, is such to be the result of the intermixture, on this con-

tinent, of the European and other varieties of our species? And if so, is the territory of the American confederacy the field in which such a result is to be consummated? And is the 'American nation,' as contemplated by Prof. Guyot, 'a synthetic type preparing a new era?'"

Our continent, doubtless, presents the most extraordinary example ever offered of a combination of circumstances suited to produce preternatural physical and mental vigor in its inhabitants. But four centuries ago the ocean veiled it from the nations of the old world. Since that time, upon its soil liberty has found an asylum, and slavery a sepulchre. Upon its territory the sciences and arts have attained to a luxuriant growth. During peace, the developments of the agricultural and mineral resources of the land have astonished the world; while during wars, large temporary navies and gigantic volunteer armies have sprung into existence, and proved that an intelligent people were conspicuous for patriotism and bravery. Thus far the anticipations of our forefathers, in regard to the national grandeur of the American confederacy, have been fully realized. We are led to hope that the mental and physical culture of the inhabitants of this cosmopolitan continent will be so wisely directed that strength of mind and body will be characteristic of our race, and that our Republic will remain an enduring monument to the simplest and noblest form of human government—a perpetual leaven to elevate other nations of the globe towards the attainment of the highest degree of human perfection.

Macmillan, in alluding to England, already suggests the humbling thought, "that a time will come when even the Anglo-Saxon civilization, whose star is at present in the ascendant, whose power is at present a conquering power, and gives no indications of decay, shall be numbered among the things that were, and a grander and nobler development take its place in new regions and under more favorable heavens—perhaps in lands now sunk in the depths of heathenism and barbarism. It is not beyond the bounds of probability that the 'Briton of the south' may yet supplant the Briton of the north, and that Macaulay's New Zealander will actually stand and moralize, amid the ruins of London, on the vanity of human greatness. The far East was the land of science and philosophy when Europe was inhabited by savages; and under the influence of a Christian faith she may regain her ancient supremacy, and 'the fires of genius burn again with purer splendor on the very spot where first they were kindled.'"

Thus far in the history of the world, excepting in the period before alluded to, opportunity has not been afforded of citing sufficiently numerous instances of extreme age to illustrate a general prevalence of healthfulness and longevity in the human race—in other words, man does not usually live out the full Scriptural measure of his days, and further, the deterioration of nations takes place *pari passu* with the depreciation of the standard of morality. To present individual cases of longevity is to take the exception for the general rule,—it has been likened by Dr. James Johnson to pointing to the pyramids for proof that Time had broken his scythe, while

shutting our eyes to the mouldering ruins of Egypt, Greece, and Italy. The octogenarians and nonagenarians whom we meet with are only the *human pyramids* who have withstood somewhat longer than usual the wear and tear of their vocations. While the majority may desire to attain old age, how true is it, that when life is extended to its utmost confine, its strength is "labor and sorrow." How appropriate are the lines of Bryant on the old man's funeral:—

"And I am glad that he has lived thus long,
And glad that he has gone to his reward;
Nor can I deem that nature did him wrong
Softly to disengage the vital cord,
For when his hand grew palsied, and his eye
Dark with the mists of age, it was his time to die."

Occasionally it may sadly occur that friends and relations seem burdened with their lingering aged charge, and we can almost imagine them chanting the song of Meg Merrilies for the parting spirit—

"Wasted, weary, wherefore stay,
Wrestling thus with earth and clay?
From the body pass away—
Hark! the mass is singing.

Haste thee, haste thee to be gone,
Earth flits fast and time draws on,—
Gasp thy gasp and groan thy groan,—
Day is near the breaking."

Inspired with an innate fear of death, and conscious of the fact that disease and final dissolution await all, mankind to a greater or less extent are incredulous concerning our ability to cope with their maladies. Is it then a matter of wonder that the

brush of the limner, the rhyme of the poet, the satire of the dramatist, and sarcasm of the philosopher have been employed against the genius of our profession? Have we not, one and all of us, distrusted our own capacities?

But the wind is tempered to the shorn lamb, and the Creator is no less beneficent to suffering humanity. Our profession has ever believed that its resources were not as yet exhausted, and we are still exploring with zeal the kingdoms of nature for remedial agents. Nor are we disheartened at the intricacies which beset the search. Already we have been successful in finding numerous therapeutical weapons, and we are cheered and animated to persevere by the Divine promise:—"That plants shall grow of which the fruit thereof shall be for meat and the leaf thereof for medicine."

In thus far exhibiting the embarrassments which have beset medical progress, I have endeavored to show that a busy practical life almost precludes an earnest devotion to original scientific investigation; and further, that as disease and death are so inherent to human nature, it is an almost fruitless task either to conquer the one or to temporarily avert the other. In more extendedly treating the subject I shall attempt to demonstrate that commendable industry has always been exercised by our profession in the discharge of its sacred trust; to prove that such industry has overcome obstacles greater than those encountered in deciphering the arcana of other branches of knowledge, and to offer a comparison of the labors of our predecessors and cotemporaries with those of *savans* who either have been or who

are at present exploring the other departments of science.

The practice of medicine is a calling demanded by the necessities of mankind, and as a pursuit has been followed from the earliest ages. The Scriptures afford us little information concerning our profession; but the New Testament records the skill of "Luke, the beloved physician," while the Old Testament informs us that there were ancient pretenders, for Job, in upbraiding his friends, salutes them with the expression: "Ye are forgers of lies; ye are all physicians of no value." Profane history informs us that at an early period, public homage was shown to those pre-eminent in the healing art, and that at about nine centuries before the Christian era, Esculapius, the Greek physician, was deified, and temples were erected to his memory, "where he was worshipped as a divinity." In modern times there is less appreciation of medical merit. How few and paltry have been the public recognitions of medical skill—while granite obelisks and brazen statues commemorate the heroes of a hundred battle-fields!

Hippocrates, the cotemporary of Socrates and Plato, we still hold in veneration; his lineaments are impressed on the title-pages of this Academy's publications, while in his native island of Cos the inhabitants now cherish his memory and point to a building which they pretend he inhabited.

Since the time of Hippocrates, excepting during the dark ages, the history of medicine is quite complete. In recalling the philosophers in the various departments of knowledge which the world has pro-

duced during these twenty-two hundred years, we find that each century has been marked by its men of prominence. Foremost among these have been those who have been devoted to the study of medicine; and many of these, not confining their researches to their profession, have shone conspicuously in the kindred sciences, and have become distinguished in literature, art, and statesmanship.

Guided by our present views of pathology, we are enabled to detect inaccuracies of logic in some of the writings of the fathers of our profession; but their compositions, as specimens of rhetoric, are remarkable for precision of style and elegance of diction. As a classical medical author, Celsus long since was compared with Tacitus, Livy, and Cæsar, as exemplars of historical and literary composers; and we can readily imagine that the prelections of our early masters were delivered with the same oratorical power as were those which fell from the lips of the Roman senators.

Possibly modern science would attract more numerous and ardent devotees if the didactic treatises relating to its various branches were more fully enlivened by the amenities of polite literature. The writings of Drs. Good, James Johnson, Watson, Winslow, and others, of England; of Rush, Dunglison, Holmes, and others, of this country, have shown that abstruse philosophical reasoning may be so intertwined with anecdote and with classical prose and verse as to render attractive themes ordinarily regarded as metaphysical and uninviting. Science is not degraded, but ennobled, by its affiliation with literature.

Haller, the noted anatomist of the eighteenth century, has given us a catalogue of thirty thousand medical and surgical writers, with the titles of their productions. To what an extent could this list be increased by the names of authors since his day!

Are we disappointed at the results of such labors? How comparatively few are there who have left behind them imperishable monuments of their originality!

Bacon, in his Maxims of the Law, has said: "I hold every man a debtor to his profession; from the which as men of course do seek to receive countenance and profit, so ought they of duty to endeavor themselves by way of amends to be a help and ornament thereto." Again he has elsewhere remarked: "Some books are to be tasted, and some few to be chewed and digested."

As our science is to a certain extent an inductive one, we are not to be surprised that such a mass of material has been collected in reference to it. It is by the collation of theories and of facts that we can expect to derive valuable practical information. Nor need we upbraid ourselves that a small harvest has been gathered as the result of such prolonged labors. The same has occurred in other branches of knowledge. Many, both in ancient and modern times, have been known for their writings, but whose labors have not proved of any permanent benefit to the world.

According to Laertius, Epicurus wrote no less than three hundred volumes, and in these, it has been stated, he did not insert a single quotation. Varro, known as "the most learned of the Romans,"

and the intimate friend of Cicero, states that he composed four hundred and ninety books; but two of his productions have reached us. Seneca informs us that Didymus, the grammarian, surnamed *brazen entrails*, from the number of his writings, composed nearly four thousand volumes—none of these have come down to us. Origen, a celebrated father of the Church, who, from his indefatigable application to study, was surnamed "*man of adamant*," it is said, prepared six thousand treatises, but few of which are still extant.

Thus it is seen that in the kindred pursuits of philosophy, science, and religion, there have been prolific writers who have not materially added to the stock of permanent practical information. No one, however, can fail to read with interest and profit the early literature of medicine, and subsequently to trace the changing trains of thought through ages and centuries, until the present views of physiology and pathology have been reached.

There have doubtless been those in our calling, as in others, worthy of posthumous fame, but who have been overshadowed by cotemporaries tainted with jealousy, that

> "monster,
> Begot upon itself, born on itself."

Again, there have probably been many possessed of unusual talents who have shrunk from encountering the harsh criticism too apt to be heaped upon original investigators, or who, after their first essays, have been discouraged to persevere in their work by reason of those who, to use the words of Pope,

"Damn with faint praise, assent with civil leer,
And without sneering, teach the rest to sneer."

Genius, unfortunately, does not eradicate the grosser passions of the soul. Samuel Johnson, England's immortal author, was slow to acknowledge superior mental gifts in others, and by his harsh language and writings withered the feelings of his cotemporaries, both male and female. He found, however, in Dr. Mayo a champion worthy of his steel—a man, it is said, of calm temper, and who, because he never flinched under the strokes of his satire, received the epithet of the "Literary Anvil."

While our profession is proverbially liberal in its recognition of merit, it is not, in this regard, absolutely immaculate. We are wedded to views and to theories in which we were early indoctrinated, and are slow either to modify or to reject them.

Dr. Mayo's composure, when submitting to harsh denunciation, is worthy of emulation; but illiberal criticism often excites the retort discourteous, and the contrariety encountered by philosophical explorers may partially account for the asperities of character which they sometimes exhibit.

The world, however, has seen but few extraordinary men, or at least but few remarkable original thinkers. And the labors of these, in the course of ages, are often almost forgotten unless they are of great practical value. Lavengro, in reviewing his own works and writings, exclaimed, "Are not all things born to be forgotten? Have I done enough to secure a reputation of a thousand years? Well, but what is a thousand years after all, or twice a thousand years? Woe is me! I may just as well sit still."

A scientific treatise may be regarded as a congregation of facts and of opinions which have been established and held by many minds; seldom is it that one can be regarded as an offspring of a single master spirit. There have been as few possessed of gigantic intellects, as there have been of those peculiar for extraordinary physique. The man or woman who exceeds but a trifling degree the average stature is looked upon as a curiosity. Those possessing unusual mental calibre, though not made objects of public exhibition, nevertheless attract the attention of the multitude.

It would be unreasonable to expect any single calling to absorb all those possessed of brilliant genius. Our profession has had its full share, but it seems to have been ordained by Providence that the mysteries of science should be very gradually developed. In our investigations we have been, like the suitors of Penelope, often disappointed. At the very point of winning a prize, fair nature, apparently yielding, has broken a link and eluded our grasp, as the Grecian princess who by day embroidered but by night unravelled again the tapestry, the completion of which was the promise of her hand.

Occasionally it has happened that a thought or doctrine supposed to be original to our own century is found to have its prototype in an early antecedent period. And thus has it been in other departments of knowledge. James Hamilton has truthfully said:—"Many a maxim has got a fresh circulation, and has made a little fortune of renown for its author, which is, after all, a medal fresh minted from Bible money: the gold of Moses or Solomon used up

again with the image and superscription of Bacon, or Pascal, or Benjamin Franklin."

Let us for a moment consider a few of the obstàcles which have retarded the development of medical science. In order to treat disease with any degree of certainty and success, it is necessary to be acquainted with the anatomy and physiology of the human frame, as well as to be acquainted with morbid processes. The human cadaver in all ages has been held in almost sacred regard. Moses declared that "he that toucheth the dead body of any man shall be unclean seven days." Sacred and profane history inform us that several nations of antiquity embalmed their dead as a mark of respect, while others observed other customs esteemed equally respectful to mortal remains.

Hippocrates drew his inferences concerning health and diseases without having dissected the human body—his anatomical knowledge having been acquired by the after-death examination of brute animals, more particularly of apes and monkeys, as having more resemblance to man. Plato had defined man as "a two-legged animal without feathers." Diogenes, on hearing the definition, plucked a cock, and bringing him into the school said, "Here is Plato's man." From which there was added to the definition, "with broad, flat nails." Diocles about this time prepared a treatise giving directions in reference to the dissection of the inferior animals. It is not at all probable that the proud old Greeks, Romans, Athenians, and Egyptians admired the comparisons of themselves either with apes or with cocks.

Imagine for a moment the conflicting feelings which beset the first explorers of the body. Animated by a laudable desire for knowledge, they were forced not only to overcome their own superstitious regard for the dead, but also to incur the odium of sacrilege and the disgrace and pain of punishment.

About three centuries before the Christian era, Herophilus, a native of Chalcedon, and Erasistratus, of Inulis, a grandson of Aristotle, laid the foundation-stones of the science of human anatomy, and the superstructure erected since their day has scarcely reached completion. Fleeing to Egypt to prosecute their labors, it required the authority of its monarch to protect them from the rage of the people. Herophilus, it has been said, resorted to human vivisections, more particularly of criminals, and in this regard was worthy of condemnation. He was the originator of pathological anatomy, and was the first to propose post-mortem examination to learn the cause of death. Fallopius, centuries after, denominated him "the evangelist of anatomists."

The opposition which these early explorers encountered in examining the dead has been experienced through the course of ages, extending, though to a more limited degree, even to our own day, and it has only been within about fifteen years that dissection in our medical schools has been legalized in the State of New York. During this long period, however, anatomy has been thoroughly pursued, and as a branch of medical science is now almost perfected.

Is it said that our profession has been slow in

bringing it to its present state? Equal tardiness can be observed in the development of other branches of knowledge. Was it not reserved for Bacon, towards the last of the sixteenth century, to inaugurate the science of natural philosophy? The sun, moon and stars shone with the same brilliancy and were governed by the same laws from the antediluvian period to the present day; but it was not until the seventeenth century, when the contributions of mechanics and optics were combined in the construction of the telescope, that astronomers began to grasp the mysteries of the firmament and comprehend the laws of the celestial bodies.

Thus has it been with the science of Botany. The earth had been clad with verdure since it had been inhabited by man. Zoroaster, Aristotle, Theophrastus, Plato, and innumerable others since their day had written extensive treatises on vegetation; but it was reserved for Linnæus, the protégé of Boerhaave, in the eighteenth century, to arrange plants in a scientific classification, and separate them into sexes. It was ordained that the poetical Goethe, at a later day, should demonstrate the fact foreshadowed by Wolff, that the leaf was typical of all parts of the plant, from seed to blossom, and in petal, sepal, stamen, and pistil—a fact at first derided by the cotemporaries of Goethe as an idle fancy of the imagination, but which finally became established as a botanical tenet.

Thus also has it been with Geology. Had not the mountains been piled up, Ossa upon Pelion, from time immemorial? Had they not exposed to man's gaze the naked faces of their uplifted strata? Was

it not reserved for Buffon to decipher these natural hieroglyphics? On viewing fossil remains of bones and shells different from the forms of those found on earth in its present condition, he conceived the idea of a vast pre-Adamite period in which our planet had been inhabited by organized beings. "Filled with awe," it is said, "the old man, then over eighty years of age, published his discovery. In a kind of sacred frenzy he spoke of the magnificence of the prospect, and prophesied of the future glories of the new science, which he was, alas! too old to pursue."

It has been delayed to the present century, when the microscope has reached a high degree of perfection, for our profession to complete its knowledge of anatomy by the examination of the minute organism of man.

The study of anatomy has simply explained the mechanism of the human structure; it has not unfolded the workings of the body endowed with life. How many obstacles have beset the elucidation of Physiology! Human vivisections have never been tolerated, and vivisections of the inferior animals have received popular opprobrium. Is it a matter of surprise that the accumulation of facts has been slow? Many inferences have necessarily had to be drawn from comparative physiology; but the lessons thus learned have proved of inestimable benefit to suffering humanity. Vivisections, however, should be performed solely in the spirit of scientific research, and when a fact is established by them, our profession should place its solemn veto on their unnecessary repetition.

The accident to Alexis St. Martin, in 1822, afforded an extraordinary opportunity of observing the process of digestion; but how few instances have there been in which observations of other vital phenomena have been made in the human subject! There have been other difficulties besetting the investigations of animal life. Until towards the dawn of the present century chemistry was wedded to theories allied to the vagaries of the ancient alchemists. The experiments of Cavendish, Lavoisier, Priestley, Scheele, Dalton, Wollaston, Berzelius, Gay-Lussac, and others, have since that time placed it among the exact sciences. Physiology, thus aided by chemistry, has, within the last one hundred years, assumed an exalted position, and already all the more important functions of the body have been described.

The engineer can inform us whether his engine is of one horse or twenty horse power. The physiologists now assure us that every grain of carbonic acid and of urea excreted represents a certain amount of expenditure of vital force, and by algebraic calculations can compute their equivalents in miles walked, or the number of pounds lifted through space. Could Euclid, the great cotemporary of Hippocrates, have imagined that the followers of the Father of Medicine could attain such mathematical precision in regard to vital action, he would doubtless have acknowledged that *dissections* and *vivisections* would prove of more value to mankind than his favorite *conic sections*.

Nor can we as yet describe the limits of finite understanding. An English writer in his enthusiasm has said:—"Our successors may even dare to

speculate on the changes that converted a crust of bread, or a bottle of wine, in the brain of Swift, Molière, or Shakespeare into the conception of the gentle Glumdalclitch, the rascally Sganarelle, or the immortal Falstaff."

The department of therapeutics could not be expected to reach any degree of scientific importance while anatomy and physiology were imperfectly understood. All honor to our medical forefathers, who, with a limited knowledge of these branches, were almost instinctively led to cope successfully with many diseases. Nature is not adequate to every emergency. At one moment she appears gracious and at another ungracious in her action in disease, and this doubtless led the Egyptians to believe that the divinity might be either comely or uncomely in her appearance. They have bequeathed to us this uncertain portraiture of the goddess :—

"For with a veil that wimpled everywhere
Her head and face were hid, that mote to none appear;
That some do say, was so by skille devised,
To hide the terror of her uncouth hue
From mortal eyes that should be sore agrised;
For that her face did like a lion show,
That eye of wight could not endure the view;
But others tell that it so beauteous was,
And round about such beams of splendor threw,
That it the sun a thousand times did pass,
Nor could be seen, but like an image in a glass."

Nature being inadequate to relieve many disorders, relief for them has been sought from artificial means. But the agents employed to neutralize morbid conditions may prove in themselves noxious. Physicians have consequently been deterred from a

fearless trial of drugs, lest disaster rather than cure follow their administration. The care which has ever been exercised in this regard is worthy of emulation.

To say nothing of the chemical labors now bestowed on many of the medicines now employed, how many tedious experiments have been made with numerous of the articles of the materia medica before they were used as remedial agents. Their exhibition to the inferior animals to learn *approximately* their effects, as well as the doses in which it is proper to employ them. How frequently has it been found that their behavior is different when given to man! Again, in dispensing them to healthy adults to decide their physiological effects, physicians have not hesitated to test new remedies in their own persons, and many have sacrificed their lives on the altar of their profession while engaged in such original inquiries. And finally, having learned to a certain extent the effect and dose of a drug on the healthy subject, it has still to be adjudged at the bedside, and decided whether its subtile action will antagonize the equally subtile action of disease.

In the treatment of mental derangements how great have been the improvements, but how necessarily slow have been their development. With an imperfect knowledge of the nervous system it was impossible for medical men to understand mental disorders, and this fact, coupled with a general superstitious belief in demoniacal possession and witchcraft, made the insane objects of special avoidance and terror, and subjected them to inhuman incarceration. Are we surprised, therefore, to read of former madhouses, where

"No light, but rather darkness visible,
Served only to discover sights of woe;
Regions of sorrow, doleful shades where peace
And rest can never dwell; hope never comes
That comes to all . . . . . .
The key of this infernal pit *we* keep."

But the key which is now turned on these unfortunate patients may but temporarily isolate them from the world. It encloses them in buildings of superb architecture; in chambers and drawing-rooms of comfort and elegance, while around them are thrown the benign influences of social intercourse, of music, of refined amusements, of religion, and of hygienic and therapeutical resources. Thus are we often enabled to

"Pluck from the memory a rooted sorrow;
Raze out the written troubles of the brain;
And with a sweet oblivious antidote
Cleanse the foul bosom of that perilous stuff
Which weighs upon the heart."

Time has only permitted me to allude to a few of the barriers which have obstructed the pathway of medical science. Had the members of our profession preferred to consult their own pleasure rather than employ their leisure in studying the cadaver in microscopical research, and in chemically analyzing tissues, secretions, and foul excretions, the world would still have been guided by empiricism, and the mean of life not extended beyond that which prevailed at the commencement of the Christian era. The passing jest and the satirical pen can be employed in vain against us; they

"Fall like an inverted cone,
For want of proper base to stand upon."

Therapeutics, as far as it has been practicable, has kept pace with the advances made in pathology. We acknowledge our ignorance respecting various points relating to medical science, but cannot admit that we have been listless in searching for information. We can congratulate ourselves on what has been acquired, and can afford to be amused at the jokes cracked at our expense. In respect to blood-letting, which is not at present a favorite therapeutical resource, we cannot affirm that it was formerly uncalled for, as the diatheses of disease may in the past have partaken of a sthenic character. Doubtless, in unskillful hands, the lancet has been too freely employed, but it is now securely sheathed, and held in reserve for special emergencies. We are not blind defenders of ancestry, and can laugh at the humor of Thomas Hood, who, in satirizing the phlebotomists of his day, remarks in Death's Ramble:—

"Death saw a patient that pulled out his purse,
And a doctor that took the sum;
But he let them be—for he knew that the '*fee*'
Was a prelude to '*faw*' and '*fum.*'"

Hood has not been the only writer to lampoon the venesectors. Le Sage, in his Gil Blas, represents Dr. Sangrado as practising blood-letting as a remedy for all sorts of ailments, including the toothache; while Smollett bestowed upon his medical attendant the following affectionate squib:—"I was obliged to send for a physician, who seemed to have been a disciple of Sangrado; for he scarcely left a drop of blood in my body."

In a recent work which has attracted much attention, the author does not allow the opportunity to escape without giving us a thrust. Poor Heine, bedridden, is represented as reading all the books treating of his disease, and as remarking:—"But what good this reading is to do me I don't know, except that it will qualify me to give lectures in Heaven on the ignorance of doctors on earth about diseases of the spinal marrow."

We occasionally meet with instances in which patients, when ill unto death, are appreciative of their physician, and are in a pleasant religious frame of mind, but who, on recovering, lose both these mental emotions. Rabelais was not an inspired writer, but was inspired with truth when he wrote—

> "When the devil was sick, the devil a monk would be;
> When the devil was well, the devil a monk was he."

A few words in regard to the present and future status of practical medicine and surgery. In the early period of the world, surgery, doubtless, attained greater perfection than practical medicine. In many injuries the means of relief are quite apparent. Homer relates the surgical skill of the great Machaon, but is silent in reference to his ability to control the epidemics of his day. The physicians studied nature closely; and if it was observed in the course of a disease that a diaphoresis, diuresis, or catharsis occurred spontaneously, and afforded relief, they endeavored, when treating similar cases, to hasten convalescence by artificially inducing such conditions. Indeed, Hippocrates was so inclined to rely on nature in many disorders, that in Rome,

several centuries after, his practice was described as a "meditation on death."

If the latter part of this century is to be marked by improvements in therapeutics and surgery at all commensurate with the advancements made in anatomy and physiology in the earlier part, our profession will be crowned with a success which could scarcely have been anticipated in former years. No elixir of life, however, must be expected by the community which will restore those who have persistently violated the laws of health. In a large number of diseases there are structural changes. It is unreasonable to suppose that we can reclaim altered growths, though even in some such cases it is already found possible to stay further ravages, and nature, aided by art, vicariously performs the work of the deteriorated tissue. For the many disorders dependent upon functional derangements of the nerves and viscera, our improved acquaintance with anatomy and vital chemistry has led to more successful methods of treatment, while the future has in store still grander achievements. For the various septicæmic affections, as scarlet fever, measles, typhus and typhoid fevers, we are as assuredly to find prophylactics as has already been found in the case of small-pox. These diseases we cannot expect to banish from our nosology, but we or our successors are to find antidotes for their poisons, and their treatment is to be placed on the same *precise* principles as we manage those injured by inimical vegetable and mineral substances. The chemist can artificially change the most venomous material either into its ultimate inorganic elements, or into simple harmless

bodies. It is more difficult in the human laboratory to induce similar transition, but of its possibility we should scarcely have a doubt. In acute diseases our science is not barren in resources; already we can shorten the attacks of various disorders, and afford palliation to those which are self-limited.

Nor are we to suppose that we have been exhaustive in our search for therapeutical means. Are we not warranted in hoping to find other remedies than those we now possess, of the nature of specifics? The organic and inorganic worlds hold out fertile and still unexplored fields in which to search for remedial agents.

The illustrious and lamented Rush was keenly sensitive to the vast resources of our own country, and was sanguine that his profession would be foremost in its exploits compared to the other pursuits of life. "Who knows," he remarked, "but it may be reserved for America to furnish the world from her productions with cures for some of those diseases which now elude the power of medicine? Who knows but that at the foot of the Alleghany mountain there blooms a flower that is an infallible cure for the epilepsy? Perhaps on the Monongahela or the Potomac there may grow a root that shall supply by its tonic powers the invigorating effects of savage or military life in the cure of consumptions."

Dr. Samuel Henry Dickson has said:—"The genius of our country lies in exaggeration. We must 'go ahead' *extra flammantia mœnia mundi.* There is no resting-place for our unquiet people. No principle is worth asserting with any modification, no enterprise worth the undertaking if it have a limit." I would

ask if we have been sufficiently diligent in seeking for defensive and offensive weapons? Have the fields been scoured; have the active principles been extracted; have all the antidotes to death been found?

In the department of surgery, the improvements which have been made in modern times are so numerous that time scarcely admits an allusion to them. In original conceptions and operations our Academicians have been foremost. I have merely to mention a few topics, as the ligation of arteries, lithotomy, operations upon the throat, for vesico-vaginal fistulæ, tenotomy, treatment of fractures, etc., to remind you of those who have shed lustre upon themselves, upon this Academy, and upon our land. Can we not speak with almost the same enthusiasm of several of our deceased and living surgeons as Dr. Post remarked in his eulogy of Dr. Mott? "On the banks of the Thames and the Seine, the Danube and the Rhine, the Neva and the Spree, the Tiber and the Arno, the La Plata and the Amazon, as well as the Connecticut and Hudson, the Delaware and the Mississippi, the name of the great American surgeon is known and honored, and the records of his brilliant achievements in surgery are treasured as an important part of the crown jewels of our profession."

As the true merits of associates are not always appreciated, it has been contended by Stanley that "a foreign nation is a kind of cotemporaneous posterity." If this be true, the transatlantic fame of many of our Academicians assures them of the regard with which our successors will cherish their memories.

In scarcely a department of medicine has there been greater apparent advancement than in that of

Hygiene. The ancients worshipped Hygeia, the goddess of health, but were unacquainted with the fulness of her generous bounties. Of the importance of regimen as a means of preserving health they were fully aware; but they were impotent to arrest the ravages of pestilential diseases, which were regarded as visitations indicative of divine wrath and as ungovernable by human agency. To say nothing of vaccination and of the other means now adopted to arrest the spread of contagious maladies, how greatly has our ability increased within a few years to lessen the ravages of epidemic disorders.

Does the poisonous miasm of cholera or of yellow fever, wafted by the cohorts of Death, threaten the land, we have merely to invoke the aid of Hygeia, more liberal in her benefactions in these latter days than formerly, and the goddess sprinkles over her supplicating subjects the dusky carbon, the invigorating oxygen, the restorative iodine, bromine, and chlorine, and the miasm, as it touches with deadly venom, is changed to inertness, and the vanquished cohorts drive on their reduced vapor to other realms where the divinity is less revered, and there death holds high carnival.

Though science enables us to neutralize many of the atmospherical conditions giving rise to epidemic and endemic diseases, it is somewhat singular that the *precise* nature of such aërial contaminations has not been discovered. Their poisonous influences are readily recognized by their effects upon mankind; indeed, in some instances by their effect also upon the inferior animals. Homer, in his Iliad, in alluding to this fact, relates that—

"On mules and dogs the infection first began,
And last the vengeful arrows fix'd in man."

In our own day epizoöties have been observed as occurring antecedently to and concurrently with epidemics.

It is fortunate that we are enabled to arrest the ravages of pestilential disorders, and are even competent to prevent an epidemic by early extinguishing the germs of disease, while at the same time we are unaware of the exact character of the subtile agents we are destroying. The miasm of cholera and the malaria of yellow fever, except in a very few localities, offer only occasional opportunities of examining their essential qualities; but paludal exhalations from time immemorial have afforded ample occasion for study over a large extent of territory and during a part of every year.

The Pontine marshes spread infection in the territory of the Volschi, as they contaminate the same tract of country for its modern inhabitants. The troops engaged in the wars of the classical era doubtless suffered from malarial influences precisely similar to those which have desolated our own forces on the shores of the Chickahominy and Pamunkey. But the Italian morass, thirty miles in length and eight in breadth, has at times been partially converted into inoffensive and fertile plains by the thorough system of drainage enforced during the reigns of Augustus, Nerva, and Trajan, and during the pontificate of Pius the Sixth. At other periods engineering resources were neglected; rich fields degenerated into impassable and noisome bogs, while the inhabitants

of the environs lost their ruddiness and acquired an anæmic pallor.

Had the efforts towards reclamation been persistently made from the time of their inception by the Consul Cethegus, a baneful spot could have been permanently obliterated; stagnant waters could have been collected into running streams; quagmire converted into loam, and the low vegetation of a vast fen metamorphosed into genial fruitfulness. The earth itself would have become as magnificent a monument of the philosophy and grandeur of ancient Roman civilization as have been the classical literature and massive architecture of the historical period alluded to.

In modern times there have been imitations of the ancient methods of draining in numerous localities, but nowhere perhaps has any much more extended and more promising scheme been attempted than in the one to which I have especially referred. The benefits to be derived from the construction of artificial water-courses, so arranged as to draw off excessive surface moisture, can scarcely be over-estimated; such benefits redound to the physical welfare of mankind and to the agricultural interests of a State.

It is painful, however, to acknowledge inability to detect, either chemically or microscopically, the subtile agent engendered in marshy and littoral situations, and to confess ignorance respecting the *modus operandi* of the poison upon the human economy. We peruse the most elaborate monographs relating to these subjects without deriving from them any *precise* scientific knowledge, and in despair almost feel inclined to turn for information

to the paper by Samuel Pickwick, Esq., read before the Pickwick Club, and entitled "Speculations on the Source of the Hampstead Ponds, with Some Observations on the Theory of Tittlebats." A field of inquiry is still open in the direction to which I have made reference. Let us not be satisfied in conquering a foe of whose character we are ignorant. We know its numerous lairs—let us search its haunts among the *ignes fatui* till we entrap the poison, and announce its properties as found, either in animalcules or vegetable fungi, or in inorganic solid, liquid, gas, or vapor.

In no respect, perhaps, is the astuteness of the ancients more remarkably exhibited than in their views concerning solar and lunar influence upon mankind. Some of the phenomena they ascribed to such agency we recognize as due to the same cause, but explain their occurrence in a different manner; while others, asserted to have been observed in earlier days, we scarcely admit to have noted.

The Psalmist, in predicting the blessings of a future condition, has said:—"The sun shall not smite thee by day, nor the moon by night." The Scriptures record two cases of sunstroke—one the son of the Shunammite, who, being "in the field with the reapers, said unto his father, My head, my head! And when he had taken him to his mother, he sat on her knees till noon and then died." The second: "And Manasses was her husband, of her tribe and kindred, who died in the barley harvest; for as he stood in the field, overseeing them, and bound sheaves, the sun came upon his head, and he died in his bed in the city of Bethulia." I do not recall any instances in holy writ of injury induced by the moon.

Sunstrokes have been observed in all periods of the world and are encountered in our own day. The early philosophers were no less keen, however, in remarking the *salutary* as well as the *insalutary* influences of the solar ray. The importance of fresh air and of exposure to the sun in genial weather was fully understood, and solar air-baths, in some instances, were constructed on the house-tops, to which the inmates might resort for recreation and health. The ancients were of course ignorant of the precise nature of the atmosphere and of the sun's ray, but had observed their beneficial action upon animals. It has been reserved for modern times to give the explanation. We have thought until quite recently that we understood the composition of the air and the nature of light, but within comparatively a few years the experiments of *Fraunhofer*, *Bunsen*, and *Kirchhoff*, by means of the spectroscope, have exhibited the fact that the incandescent sun emits into its atmosphere iron, nickel, sodium, calcium, magnesium, chromium, etc., and we have consequently learned that the solar ray is more complex than was hitherto imagined. Is it not reasonable to suppose that in addition to any salutary chemical action of the sunlight upon mankind, that the vapor of iron, etc., may be absorbed through the lungs and skin, and be made to play an important part in the vital economy?

Thus it is that certain phenomena of nature, correctly observed by the ancient philosophers, are scientifically explained by the sages of the nineteenth century.

By the same manner of spectrum analysis, Miller, Huggins, Father Secchi, Alexander Herschel, and

others, have informed us of the composition of the fixed stars, nebulæ, comets, meteors, etc., while the chemists employ a similar method to decipher the nature of various terrene substances, and have thereby detected several ultimate inorganic elements which had previously escaped recognition.

Lunar influence, from a remote antiquity, has been regarded as being unfavorable upon mankind. The term *lunacy*, still employed in our nosology, is indicative of this olden regard. The periods of new and full moon were believed to be inimical to health, and during the course of diseases induced unfavorable crises. These views, becoming associated with the vagaries of the astrologists, were, for the most part, discarded, but there have been a few in modern times who have clung to the dogma. In India a disease occurs known as *coup de lune;* and it is very popularly believed here and elsewhere that repose in the moonlight is injurious. Milton, in alluding to this belief, speaks of

> "Demoniac frenzy, moping melancholy,
> And moon-struck madness."

Poe, in illustrating the desire to escape exposure to the moonlight during sleep, has prettily said,

> "'Neath blue-bell or streamer,
> Or tufted wild spray,
> That keeps from the dreamer
> The moonbeam away."

How much either of truth or of fancy there is in such views is as yet undecided. Dr. Winslow, of England, has recently directed special attention to the subject of lunar influence as a cause of disease,

and as modifying the course of ordinary maladies, more particularly when the moon is in conjunction and opposition; while Dr. Hewson, of this country, has written on the value of the barometer as a guide in the choice of the time for, and the prognosis in, surgical operations. Further facts and observations are needed to elucidate various points relating to the matter. Whether the polarized light of the lunar ray can unfavorably affect the sleeper exposed to it, or whether the moon when in its syzygies, and drawing our atmosphere into feeble tides similar to the tides of the ocean, can affect the human economy, or in any other ways, are subjects worthy of investigation. Possibly future researches will throw new light upon the text of Scripture which we have before quoted, and illustrate the fact that the observations of the ancient physicians were as lucid concerning lunar as concerning solar influence.

While the earlier writers of our profession have very accurately described many of the disorders which we now encounter, it is somewhat singular that no mention is found of one malady which is at present frequently observed, the etiology and nature of which it is not difficult to decipher—I allude to *delirium tremens*. The cause of this disease we recognize in the abuse of alcoholic stimulants. Wines are known to have been in use from a remote antiquity. The Scriptures speak of their employment, and give the Divine anathema which was pronounced upon the drunkard. Profane history records many a bacchanalian orgy, and represents the gods as revelling in nectar. Postprandial intoxication is not a modern species of debauchery. Homer

describes the feast at which were gathered the Trojan heroes, and thus reports the speech of the royal Ulysses :—

> "Hear me, my friends! who this good banquet grace,
> 'Tis sweet to *play the fool* in time and place;
> And wine can of their wits the wise beguile,
> Make the sage frolic, and the serious smile;
> The grave in merry measures frisk about,
> And many a long-repented word come out!
> Since to be *talkative* I now commence,
> Let wit cast off the sullen yoke of sense."

While drunkenness was common in ancient times, no allusion is made to *mania à potu*. The first tract relating to the subject emanated, I believe, from the pen of Dr. Samuel Burton Pearson, in 1801; but the malady had been recognized during the latter part of the last century. Are we to attribute the silence of the old authors to a presumed fact that the disease had not made its appearance in their day? Has the nervous system become so sensitive in modern times that it is peculiarly impressed by stimulating liquors? It seems probable that the disease was overlooked by our early predecessors, or was confounded with some other malady.

The present successful management of the disorder exhibits the confidence which our profession can at times repose in the power of nature. The opium treatment, so long strenuously advocated, is now abandoned as unnecessary, and as liable, occasionally, to induce mischief. The recent experiments of Lallemand, Duroy, Perrine, and Anstie, have shown that alcohol is partly decomposed in the body and partly eliminated through the lungs, skin, and kidneys.

Viewing acute alcoholism as a case of poisoning, we are instructed to aid nature in eliminating the offending agent, and in doing so we are not called upon to employ very potent drugs.

Improvements in natural philosophy and its collateral branches have aided the medical man in more thoroughly understanding the human organism, and also have enlarged his power to prevent and cure disease. Galileo, towards the commencement of the seventeenth century, was led to the construction of the microscope from that of the telescope. It was ordained that the telescope should reach perfection before the microscope. If Galileo, Kepler, Newton, Halley, and Herschel were appalled at the wonders of infinite space, what would have been their astonishment could they have beheld the infinitesimal microcosms revealed during the present century. The science of optics has proved an handmaid of Hygeia and an ally of Therapeia.

It has been said:

> "Diseased nature oftentimes breaks forth
> In strange eruptions;"

but modern lenses reveal the fact that numerous cutaneous affections are of local origin, dependent upon the presence of cryptogamia, epizoa, etc., and are amenable to local treatment.

To say nothing of various other vegetable and animal parasites which infest the human body, we have comparatively recently detected, by aid of the microscope, the loathsome trichinæ. We are not only enabled by the means indicated to form a diagnosis, but also are made competent to find the sources of these worms in articles of food. Aliment containing

such insects can be destroyed. Disease and death can thus be averted by the scientific application of that instrument which in a simple form was conceived by the illustrious Galileo.

Possibly our search in regard to the precise composition of alimentary substances had better be avoided, unless such articles are known to be provocative of disease. We should probably find them so loaded with life as rather to prefer to die from inanition than to live on *hemi-demi-semi-quavering vibriones.*

The vegetable kingdom is not exempt from its peculiar parasites. The Scriptures say, "I smote you with blasting and with mildew." This scourge of crops has induced famines among the ancient Jews and Romans, during the middle ages and in modern times. The farmers, in their homely nosology, employ the terms *smut*, *bunt*, *rust*, and *mildew* to the more common diseases of vegetation. Modern science has not confined its attention to animal pathology, but has paid regard to the disorders of the sister kingdom of nature, and it is found that "blasting and mildew" are conditions induced by innumerable vegetable parasites,—not a plant cultivated by man is free from such fungi. The *Ustilago segetum*, the *Ustilago maydis*, the *Puccinia graminis*, the *Trichobasis rubigo vera*, etc., the more common enemies of the cereals, are as readily recognized as are the cysticercus and trichina.

I have not the time to allude to the numerous elucidations of pathology and therapeutics which have been made by the microscope. Ever inquisitive, our profession has not been tardy in its investigations with the means at its command. From

necessity it has had to wait patiently until the nineteenth century, when it has been presented with improved optical appliances with which to make the more minute observations.

The science of Meteorology, which has so materially aided the elucidation of Etiology, more especially that of the epidemic disorders, has only within the present century assumed any degree of importance. Theophrastus, Aristotle, Virgil, Pliny, Lucretius, and others had written on the subject; but the ancient philosophers very imperfectly understood meteorology, for they were unaided by apparatus which accurately exhibited atmospherical vicissitudes.

It was not until the seventeenth century that the air-thermometer was invented by Sanctorius and Drebbel, and the spirit-thermometer described by the Florentine Accademia del Cimento; while the mercurial thermometer was not in use until the early part of the eighteenth century, when it was first constructed by Réaumur and Fahrenheit.

Torricelli invented the mercurial barometer; he died shortly after, in 1647, in his thirty-ninth year, and unfortunately before the world had appreciated the importance of his discovery that the atmosphere possessed weight. Pascal, at Rouen, repeated the experiments of the Italian philosopher, and employed, in addition, water and wine barometers, and in 1646 laid his conclusions before the public. His views were at the time received with derision, but the prejudices of an alchemistic age could not prevail against the truths of science, and now for more than two centuries the barometer has been regarded as an

important meteorological instrument. It was not until a later period, namely, in 1676, that the variations in aërial moisture could be satisfactorily ascertained. In that year Coniers produced an hygrometer—an appliance doubtless much inferior to those used in more recent times for the same purpose.

From the dates I have given to the present day, numerous thermometrical, barometrical, and hygrometrical observations, etc., have been made in various parts of the world, and as a result meteorology has been elevated to a science. By its aid our profession has been enabled to decipher the climatology of disease, and has thus drawn numerous and important prophylactic and therapeutical inferences. In addition thereto, it has been qualified to detect atmospherical conditions favoring the origin and spread of epidemic and contagious disorders. The resources of Hygiene and Chemistry have in many instances proved efficient in destroying terrene causes of disease, and thus prevented their co-operation with inimical conditions of the general atmosphere which are less under human control. The poison liable to be engendered by such combined influences is pestilential, and almost ungovernable except by natural agencies.

There is one meteorological principle which it appears to me has not been sufficiently observed in reference to its causation of disease. I refer to *electricity*, both atmospherical and terrestrial. The intensity of atmospherical electricity is found to vary with the hour of the day, and to vary with the season of the year. Professor Loomis informs us that there are two *daily* maxima of intensity, and

two daily minima, and that there is one *annual* maximum of intensity and one minimum. Can the human body be subjected to such variations in its surrounding atmosphere without jeopardy? Can electricity, when acting jointly with other aërial conditions, induce an insalutary atmosphere? Can this subtile power, operating either alone or in combination upon inanimate terrene bodies, thus induce an influence capable of exciting disease in man? Is terrestrial electricity nugatory in its effect upon the human economy? We have yet much to learn on these subjects, and they are worthy of more extended examination than they have hitherto received.

It would be an oversight were I not to allude in passing to electricity in other of its bearings as of interest to our profession. The agent referred to was recognized by the early philosophers, deriving its name from the Greek ἤλεκτρον, signifying amber, so called because excited by friction upon that fossil. Thales of Miletus, Theophrastus, Pliny, and others referred to a few of its properties, but it was reserved for one of our calling, Dr. Gilbert of Colchester, about the year 1600, to inaugurate the science of electricity. In its development our countrymen have played an important part. Franklin exhibited many of the qualities of the imponderable agent, and established its identity with lightning, and practically utilized his discovery by the construction of rods adapted to protect buildings and vessels during thunder-storms. Morse has employed the same principle as a means for the transmission of intelligence; while Field, with commercial enterprise, has united in telegraphic communication continents di-

vided by seas. Galvanism, a branch of natural philosophy kindred to that of electricity, owes its origin chiefly to Galvani, physician and professor of anatomy at Bologna, in 1791. An accident directed his attention to the subject. Some frogs, prepared for cooking, and designed for his invalid wife, were lying in his laboratory near an electrical apparatus which was in action. The limbs of the animals, happening to be touched with a scalpel, were instantly convulsed. His notice was directed to this phenomenon, and he was led to investigate its cause. On publishing his experiments, he announced as a discovery that the animal body possessed an inherent electricity of a specific kind. Shortly after came Valli and Fowler, while Volta inaugurated a new system of experiments with the *galvanic* or *voltaic* pile. Since their day other observers, with improved instruments, have developed an electro-galvanic current potent in the decomposition of various compounds, and a valuable adjunct to chemistry in many of its applications.

While electro-galvanism has proved of incalculable advantage to mankind in an indirect manner, as I have indicated, it has also become a direct source of value. Our profession has not been satisfied that a powerful agent, first philosophically described by the illustrious physician of Queen Elizabeth, and subsequently, in a modified form, by the Italian anatomist, should be appropriated solely by the more mechanical departments of science. *Vital electricity* has been made a subject of special study, and at the present day we possess elaborate treatises, based on exact knowledge, relating to electrical currents as

speeding through vegetable fibres and through animal tissues.

From electro-physiology has been deduced a practical branch of medicine: I refer to *electro-therapeutics*. The electric current, artificially induced, is now skillfully applied to the animal economy as a remedial agent, and may be so tempered as to suit diverse morbid conditions. We observe it inducing motion where there is palsy; sensation in anæsthesia; anæsthesia in hyperæsthesia; imparting tone where there is atony, and, according to the degree of its intensity, causing either the gradual or sudden destruction of abnormal growths. In alluding to these branches of medicine we should not fail to recall the brilliant labors of our young countryman, Dr. Charles E. Morgan, whose premature decease the profession of this city has so recently been called upon to deplore.

It has been contended that the practice of medicine in our own day has been too freely divided into specialties. This division of labor, however, will doubtless conduce to the promotion of science and to the amelioration of disease. Nor is it a novel precedent. Herodotus states, as given by Black, that when "he made the tour of Egypt, every physician applied himself to the cure of a single disease only, by which means physicians abounded everywhere—some professing the cure of the eyes, some of the head and teeth, some of external, and others of internal disorders."

We are not warranted in approving or in emulating such extreme dilution of labor; its adoption would weaken, not strengthen our skill. It seems

necessary, nevertheless, for a few individuals in every large community to concentrate their energies on special departments of medical science, and the plan as at present adopted seems the one best calculated to achieve the purpose designed by such concentration, and is an evident improvement upon the example of those forefathers who preceded us twenty-three centuries. The specialists cannot expect to escape the shafts of satire. Hood has employed his genius against the aurists when, in his Tale of a Trumpet, he relates the cure performed by the itinerant pedler:—

> "There was Mrs. F.,
> So very deaf,
> That she might have worn a percussion cap,
> And be knock'd on the head without hearing it snap;
> Well, I sold her a horn, and the very next day
> She heard from her husband at Botany Bay!"

Though hygiene and therapeutics have made many advancements, there is a limit to their progress. To say nothing respecting the prevention and cure of the graver acute diseases, how many chronic disorders are there, especially of the nervous system, for which prophylaxis and relief are almost sought for in vain. Can drug be found to smooth the wrinkled face of grief? Can herb revive the heart subdued with care? Can mineral, floating fleetly through the veins, chase out perplexities which corrode the brain? Can spirit, permeating every mortal cell, give tone to the crushed frame of proud ambition? Can gas or vapor enliven cast-down melancholy? Can elixir give bloom to the tidy housewife distracted by domestic anxieties? Can there on earth

be found a panacea for such mental bruises? And when the shades of night have closed about, and the aching head seeks repose, insomnolency too often aggravates the anguish. And when "the breezy call of incense-breathing morn" invites all living creatures to exertion, the sleepless being rises to encounter new troubles, while enervated by his restless midnight tossings:—

"The careful Betty the pillow beats,
And airs the blankets, and smooths the sheets,
And gives the mattress a shaking;
But vainly Betty performs her part,
If a ruffled head and a rumpled heart,
As well as the couch, want making."

The Scriptures say,—"The sleep of a laboring man is sweet, whether he eat little or much; but the abundance of the rich will not suffer him to sleep." With what truth could King Henry the IVth exclaim—

"How many thousands of my poorest subjects
Are at this hour asleep! Sleep, gentle sleep!
Nature's soft nurse, how have I frighted thee,
That thou no more wilt weigh my eyelids down,
And steep my senses in forgetfulness!
Why rather, sleep, liest thou in smoky cribs,
Upon uneasy pallets stretching thee,
And hushed with buzzing night-flies to thy slumber,
Than in the perfumed chambers of the great,
Under the canopies of costly state,
And lulled with sounds of sweetest melody?
Then happy, lowly clown!
Uneasy lies the head that wears a crown."

Reference has been made to a few of the difficulties which have retarded the progress of medical

science; there are discouragements encountered by physicians to which I have not alluded. How many in the community are to be found, of education and refinement, who intrust their lives, as well as those of their families, to confirmed empirics or to ephemeral charlatans, who, like

> "Morning insects that in muck begun,
> Shine, buzz, and fly-blow in the setting sun."

The success of these numerous unprincipled deceivers scarcely fails to dampen the ardor of the members of the legitimate profession. If ignorance is rewarded by the patronage of intelligent persons, little encouragement is offered to prosecute studies which, to a certain extent, are insalutary upon those engaged in them. Those entering the profession are sorely tempted to spend their leisure moments in slippered idleness rather than engage in original explorations unproductive of pecuniary remuneration.

It would be charitable on our part to ascribe to the modern patrons of quacks the same causes for their conduct as Cleomenes the Lacedæmonian ascribed for his. A friend wondering that this philosopher, afflicted with a chronic disease, should consult a wizard, asked him the reason for such a change. "It is," he replied, "because I am not the same man now that I was some time before, and consequently, as I am not the same man, I do not approve of the same things."

Our profession is worthy of the highest confidence in that it is liberal, progressive, and honorable. It is liberal in purpose, in its recognition of true merit, and in its benefactions. We read that

Antonius Musa, though born in slavery, became a distinguished physician, and for his cure of the Emperor Augustus was honored by a brazen statue, erected by order of the Roman Senate, which was placed near that of Æsculapius; while his brother Euphorbus was scarcely less noted, and became the physician of King Juba. In our own day how many have attained the highest positions which their brethren could bestow upon them, though they have been unaided by ancestry or by patrimonial estate.

For the benevolence of our profession I have merely to point to the abodes of poverty, to the almshouses, dispensaries, and hospitals, in which is willingly and gratuitously bestowed the best medical talent of city and of country. But in this regard we are but following the example of our predecessors. Boerhaave declared that "the poor were his best patients, for God was their paymaster." Fothergill gave "half of all his goods to the poor," while Dr. Heberden, on being reproved for his far-famed generosity, replied:—"After all my charities I am afraid that I shall die shamefully rich."

Early and deeply imbued with a reverential regard for the peculiar responsibilities of his profession, the medical man has scarcely ever been known to desert the path of honor while in the discharge of his duties. History affords many instances of high-toned physicians. Artaxerxes, aware of the skill of Hippocrates, besought him to arrest the malady which was desolating his forces, but Hippocrates spurned the proposal and the splendid gifts offered by the enemy of his native island. Alexander the Great, dangerously ill, was informed by

letter from Parmenio that Philip, his physician, had conspired against his life and was about to administer to him a poison. As Philip approached him he drank the proffered draught while handing the venomous epistle of his lieutenant to his faithful physician. His confidence was rewarded by his early recovery.

I recall but one prominent instance in which a physician has proved faithless to his trust. Fabritius, when Consul, received letters from the King's medical attendant, proposing, if desired, to destroy the monarch and thus end the war. Fabritius sent the communication to Pyrrhus, desiring him "to take care of himself, since he had, in all appearances, made as bad a choice of his friends as he did of his enemies." Pyrrhus forthwith hung his physician, and as a reward to his enemy for the discovery of the design returned to Fabritius all the Roman prisoners. Fabritius refused accepting them unless as an exchange for an equal number of the Epirotæ, declaring that he disclosed the plot not "from any regard to Pyrrhus, but to clear the Romans from all imputation of desiring to conquer an enemy by fraud whom they could not conquer by valor and virtue." Fortunately, history has not transmitted to us the name of the ignoble physician.

We live in an enlightened age; it is not the aim of the medical profession to pander to the superstitious regard of the community. Until quite a recent time, however, the physician was held in almost preternatural respect, and such reverence was courted by assuming a peculiarity of mien and attire. In the sixteenth and part of the seventeenth century

"the physician was disguised under a grave and solemn countenance, was caparisoned in an enormous wig, a full-trimmed coat buttoned to the bottom, and other extravagant paraphernalia." It may be irreverent on our part to smile at ancestral idiosyncrasies, but we can scarcely fail to recall in this connection the lines of Dr. Oliver Wendell Holmes in the Last Leaf:—

> "I know it is a sin
> For me to stand and grin
> At him here;
> But the old three-cornered hat,
> And the breeches and all that,
> Are so queer!"

Our legal brethren have been slower than ourselves in divesting themselves of distinctive attire. Memory need not fatigue itself in recalling their courtly trappings of wigs, silken vestments, and ermine-lined robes—nor are we surprised that the lawyers have been loath to part with these artificial means of exciting the awe of the populace. Have they not needed such resources?

> "Through tatter'd clothes small vices do appear—
> Robes and furr'd gowns hide all."

Unfortunate has ever been the physician who has suffered examination from these barristers. If human testimony is worthy of consideration, with what small regard have the legal profession been held as compared with our own. Was Justinian or were his predecessors or successors ever deified? Were temples or statues erected to commemorate the lives

and examples of living or deceased jurists? Have they possessed tutelary gods or goddesses? Antiquity yields them no such tribute. Was it in sarcasm that Arbuthnot said, "Law is a bottomless pit; it is a cormorant, a harpy that devours everything"? Was it in satire that Otway declared, "Law is a torment of all torments"? Crabbe has said—

> "Law was designed to keep a state in peace,
> To punish robbery, that wrong might cease;
> To be impregnable; a constant fort,
> To which the weak and injured might resort;
> But these perverted minds its force employ,
> Not to protect mankind, but to annoy;
> And long as ammunition can be found,
> Its lightning flashes and its thunders sound."

Samuel Butler represents the lawyer,

> "With books and money plac'd for show,
> Like nest-eggs to make clients lay,
> And for his false opinion pay."

Shakespeare describes the judge—

> "And then the
> Justice
> In fair round belly, with good capon lin'd,
> With eyes severe, and beard of formal cut,
> Full of wise saws and modern instances,
> And so he plays his part."

While Pope, to exhibit the injustice of the law, has said:—

> "The hungry judges soon the sentence sign,
> And wretches hang, that jurymen may dine."

Recall the numerous cold dinners we have taken. How many choice dishes have been consigned to the garbage-box, but which we had indulged the hope of enjoying ourselves, detained perhaps from the

meal while in attendance at hamlet or hospital upon some abject pauper invalid, or while assisting at the birth of some unfortunate being whose prospective heirloom is a discordant hand-organ and phthisical monkey! Have any of the legal profession been drawn hither on this public anniversary occasion,—to such, a word. The opportunity is constantly afforded you, when examining medical experts as witnesses, to ridicule medical science, to entangle opinions, to overcome testimony with jest, and perchance thus to exonerate a worthless client. When occasion is presented to us of trying the merits of our steel, you are prostrate before us, and it is ignoble to smite even a fallen foe. I have availed myself of quotations from laymen to playfully give an Academical *tit* for a courtly *tat*. Remember that in our apothecary's hall you no longer find

> "a tortoise hung,
> An alligator stuff'd, and other skins
> Of ill-shaped fishes;"

but in their places you observe, in Gothic alcoves, the busts of Hippocrates, of Galen, of Harvey, of Laennec, of Mott, of Francis, and of Stevens; the pill-boxes remain, but they are filled with dragées; in place of musty seeds, and old cakes of roses, you find tinctures more potent and savory than the sparkling ruby wine; extracts containing the concentrated virtues of forests, and chemicals more subtile than disease.

We recognize in members of the legal profession wise counsellors, incorruptible judges, learned statesmen,—it is the charlatans, like the medical empirics, who are the chief objects of our derision. The regular

medical profession offers its heart and hand to the legitimate legal profession; nay, let us form a triple alliance, and include in the bond our clerical brethren, for whether we travel north, south, east, or west, wherever suffering humanity is to be found, there we should observe the clergy, physicians, and lawyers conscientiously united in aiding the interests of soul, body, and estate.

Mr. President and Fellows, I will no longer trespass on your patience, and will hasten to conclude my remarks. Though I have been compelled to omit many points relevant to my subject, and have but loosely thrown together scattered thoughts, I have endeavored to explain some of the causes which have retarded the development of medical philosophy, and to exhibit its present claims to the highest regard. For these many centuries our science has been moving in the stream of time with wind and tide against it. It has never, for a moment, been carried backward, nor has it ever dropped anchor, but by constant and short tackings has made steady though slow progress. Our craft has been sharpened by attrition with the current, and is now so skillfully managed that the tacks are longer and the speed greater. We are even anticipating the coming of some great genius who can aid it by an impetus to *steam* along against the elements of obstruction which will always necessarily oppose it.

But how few, comparatively, can be the triumphs of therapeutics while man is wedded to his present habits. Man for the most part fails to accomplish the natural term of life by reason of his folly. What mortification and feelings of incompetency do

we experience on losing a patient by death—though we may feel persuaded that the subject of disease was a victim of an hereditary taint, and perchance, in addition thereto, of his own enervating practices.

The Lacedæmonians in the selection of their wives were as fastidious in regard to the physique of the ladies as in respect to character and social position. A heavy fine was imposed upon their king, Archidamus, for marrying a diminutive woman. "For," said they, "she will bring us a race of kinglets instead of kings."

It becomes the duty of this Academy, in "the promotion of the public health," to instruct the community in reference to sanitary science, and thus aid in the establishment of a race of robust beings, ill disposed to disease, and fitted to cast it off if seized by it.

Dr. Holmes has correctly said—

> "To guard is better than to heal;
> The shield is nobler than the spear."

There are many terse hygienic precepts recorded in the writings of others than those of physicians. Shakespeare has said—

> "And many strokes, though with a little axe,
> Hew down and fell the hardest-timber'd oak;"

and elsewhere has remarked—

> "Purge and leave sack, and live cleanly."

Dryden, in reprobating sedentary habits, has playfully written—

> "Better to hunt in fields for health unbought
> Than fee the doctor for a nauseous draught:
> The wise for health on exercise depend;
> God never made his work for man to mend."

Should mankind resolve from this hour to be guided by hygienic principles, this Academy could scatter its forces, and its Fellows seek new fields of labor. After appointing a committee to preserve its archives, we could on this, its twenty-second anniversary, disband, and in parting adopt the words of the Moor of Venice--

"Farewell! Othello's occupation's gone!"

And what a change would soon be observed in the appearance of our race. Fagnani need not search the land for types of the Muses, but could sketch his neighboring maidens. The sculptor, in typifying the Apollo Belvidere, need not mould together the foot of one, leg of another, thigh of another, trunk of another, arm of another, and head of neither one of the others, but could model from his first virile visitor. Moping melancholy would be buried with the forsaken mortars and pestles, and for its gloomy face we could observe the reality of Milton's conception--

"Jest and youthful jollity,
Quips and cranks and wanton wiles,
Nods and becks and wreathèd smiles,
Such as hang on Hebe's cheek,
And love to live in dimple sleek;
Sport that wrinkled care derides,
And laughter holding both its sides."

Then would the period of human existence be prolonged to its utmost physiological limit, and venerated age enjoy a euthanasia as described by Crashaw:—

"And when life's sweet fable ends,
Soul and body part like friends;
No quarrels, murmurs, no delay—
A kiss, a sigh, and so—away."

But the world is not prepared to inaugurate a doctorless era, and our ears as well as those of our successors are to be burdened with the groans of anguish, and our eyes with sights of woe. While we cannot prevent the occurrence of all diseases, there are many disorders which we can relieve, and there is not one in our nosology, however incurable, whose pangs we cannot at least mitigate. We have at least arrived at such perfection that we are generally acquainted with the nature of the disease even in every irremediable case. It is a painful duty, but a pleasurable success, to define the cluster of tubercles, to discover the granular kidney, to mark the course of the internal aneurism. It is a sad task, but a scientific triumph, to compare the symphony of healthy respiration with the daily varying intonations in the hectic's bosom, and foretell the approach of the harsh death-rattle which will soon be audible, and its import appreciable to an untaught bystander. The task is a pleasurable one, however, when the same acoustic skill enables us to proclaim the recession of disease. Mournful though it be, is there not music in the rhythm of the diseased heart as it murmurs its own knell?

If it be interesting to study tissues and viscera in health, it is scarcely less so to examine them when altered by disease,—in ghastly masquerade, so morbidly disguised that they bear little resemblance to their normal condition.

Though we exercise our best genius, our great enemy death will finally gain the mastery. Sir Walter Raleigh has thus apostrophized it:—"O, eloquent, just, and mighty Death! whom none could advise, thou hast persuaded; what none hath dared, thou hast done; and whom all the world hath flattered, thou hast cast out of the world and despised; thou hast drawn together all the far-stretched greatness, all the pride, cruelty, and ambition of men, and covered it all over with these two narrow words, *Hic jacet.*"

Medical science has not as yet reached the acme of its triumphs; but however great may be its future achievements, there will always be physiological phenomena beyond the comprehension of finite wisdom, and pathological lesions beyond human means of restoration. The lamented Webster, in speaking of the "Progress of the Mechanical Arts," has said:—"God seems to have proposed the material universe as a standing perpetual study to his intelligent creatures, where, ever learning, they can never learn all; and if that material universe shall last till man shall have discovered all that is unknown, but which, by the progressive improvement of his faculties, he is capable of knowing, it will remain through a duration beyond human measurement and beyond human comprehension."

With our comparatively limited knowledge we are encouraged to delve further into the mysteries in which our profession involves us. Nor are we to seek wisdom in the hope of escaping final dissolution:—

"Death but entombs the body, life the soul."

Indeed we can say—

> "There is no death! What seems so is transition;
> This life of mortal breath
> Is but a suburb of the life elysian
> Whose portal we call Death."

We are to continue to labor, not in the expectation of making man immortal, but with a desire to prevent many of his diseases, to soothe many of his pains, and to enable him to live out the Scriptural measure of his days. We have received the Divine sanction upon our work in the gift of reasoning faculties and in the assurance of remedial agents. Amid the difficulties which beset our path we need not be discouraged—

> "For o'er the blackness of the storm
> A bow of promise bends on high,
> And gleams of sunshine soft and warm
> Break through our clouded sky."

Can we not already begin to discern the signs of the times? By the success of our professional labors the average term of human life has been augmented and is now greater than it has been for many centuries. Again: through the efforts of our countrymen an electric girdle unites in intelligent communication many of the nations of the earth, and will soon enclose all in its embrace. Is not this one of the important initial steps toward the advent of a far distant period when, in a brotherhood of nations, the Babel of Tongues shall cease, and a common vernacular shall again be employed by mankind in the expression of its ideas; when, by the gradual spread of a Christian civilization through orient and occi-

dent, from pole to pole, man shall rise from a fallen estate to enjoy a renovation physical as well as spiritual; when *patriarchal longevity shall be restored*, and the prophecy of Isaiah fulfilled:—"There shall be no more thence an infant of days, nor an old man that hath not filled his days; for the child shall die an hundred years old. . . And they shall build houses and inhabit them; and they shall plant vineyards, and eat the fruit of them. They shall not build, and another inhabit; they shall not plant, and another eat: for as the days of a tree are the days of my people"? (lxv. 20, 21, 22).

Fellow-Associates, upon you in common with your brethren in other parts of the world is imposed the sacred duty of advancing the progress of medical science. Act well your part; humanity will reward your zealous and successful labors with its regard and honors, while at the same time you will contribute to the glory and dignity of the Institution which you so fondly cherish—the New York Academy of Medicine.

DR. GOUVERNEUR M. SMITH'S

# ANNIVERSARY DISCOURSE.

1869.