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THE

#### ANNUAL ADDRESS

DELIVERED BEFORE THE

# New-York State Medical Society

AND

### MEMBERS OF THE LEGISLATURE,

AT

THE CAPITOL, FEBRUARY, 1853,

#### By A. CLARK, M. D.,

PRESIDENT OF THE SOCIETY, AND PROFESSOR OF PHYSIOLOGY AND PATHOLOGY IN THE COLLEGE OF PHYSICIANS AND SURGEONS OF THE STATE OF NEW YORK, ETC.

Published by the Society and by the Legislature.

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## Address.

#### MR. VICE-PRESIDENT, AND GENTLEMEN:

I appear before you the eulogist of the medical profession. I invite you this evening to a survey of our broad domains. You will find the undertaking more a journey than a pleasure-walk; yet I venture to count on the physical endurance of the stronger sex, to bear me company to the end. It is, however, with misgivings I solicit that of my fair friends who grace our meeting. Willingly, for them, would I strew the path with flowers, and fill their hands with the sweetest of these delicate censers, exhaling incense; but the fields we cultivate furnish little worthy their acceptance. Henbane and nightshade, the foxglove and the poppy, watered as they are by lethean dews, are no fit offering for the virtuous and happy. Even our fairest flowers are sicklied over by sad association with human suffering; yet, I would gladly count on the encouragement of their smiles and the support of their sympathy, while I endeavor to point out to these, my brethren, some scenes hallowed by good deeds and great achievements, and to indicate to them a general view of cultivation and progressive improvement, which may help them to appreciate the value of their heritage.

The idea of division of labor implies that by far the greater part of mankind can knew little of other professions or callings besides their own. Some of the professions are difficult of acquisition, requiring to that end years of study and labor; the facts, principles and opinions pertaining to them are far beyond the reach of common observation, and the men who practise them are equally beyond the sphere of the common judgment. The pilot, the lawyer and the physician are conspicuous examples of this class. It has hitherto, therefore, been the policy of wise governments to protect their people from the effects of

this necessary ignorance, by subjecting all those who wish to enter these professions, to the approval of a selected and competent tribunal. But the wisdom of our time and country, in the vigor of its lusty youth, heeds little the experience of the past. It sacrifices to a theory much that, in the constitution of society, has hitherto been held in a high degree expedient, if not necessary. Equality is the procrustean bed to which every thing must be shaped. Law has ceased to require a definite term of study, and even an examination of those who seek to enter the medical profession. It has withdrawn from the man of education and science the encouragement it lately gave him; it has abandoned, and, in most of the States, it has done all that statutes can do to abolish the profession; not for any good it is expected society will gain by it, but because --- No, it is past; and if the predecessors of some who honor our society by their presence this evening were influenced by a questionable policy, or even by unworthy motives, we have nothing to gain by demanding their condemnation.

In simple truth, medicine, on her own behalf, does not deplore the change. While led by the parental hand of government, it felt itself perhaps a child; but rejected and spurned by its parent, of a sudden it discovered its manhood and its strength. It is for society alone we mourn. They, by such legislation, are left a prey to the pretender, who, by the boldest promises and the most daring lies, can most impose on their credulity. But the profession is hardly reached by it; that has a hold on the affections of man, which is scarcely less firm than the love of life itself. The feeling with which the physician is cherished is, then, too near akin to selfishness ever to die out, while men believe that skill is the legitimate child of knowledge and experience. Young transplanted trees are boxed in to protect them from injury, or tied to supports, to brace them against the violence of the winds; but when they have sent their roots deep, and their branches high, the trunk becomes strong, and they stand hardly less firm than the earth which nourishes them. So our profession, springing from a social necessity, protected by the hand of law till it has become deep rooted in the constitution of society, and has sent forth its branches to overshadow and bless it, though now the protection be withdrawn, yet will it stand unshaken till society itself is disorganized. We need then no protection,-we ask for none. We ask for no other recompense than that which suffering humanity cheerfully pays to the hand that alleviates.

And yet the incongruities of legislation may merit a passing notice.

Out of many that offer themselves, I will select but two. While government carefully defends the people against their own ignorance, by proving and stamping every pennyweight of gold and every pennyworth of copper, that is put into circulation as money, and with earnest severity punishes every counterfeiter who cheats us of a single dollar, it refuses its sanction to those who offer to judge for that same people of all that relates to the deep mysteries of life and disease; it has no punishment, no reproof even, for the counterfeit physician that cheats us of our life. It inspects drugs and medicines, destroying all that are not of standard purity, and yet it cares nothing who uses them; thus the government officer is made to sharpen the sword, and throw it into the circle, indifferent whether it fall into the hands of the trained and tried soldier, or into those of the highwayman.

Yet, notwithstanding these things, (and this brings me to the main topic of my discourse,) medicine has been for many years, and still is emphatically a progressive science. Had it been revealed like religion, it would have been complete in its revelation; but it has pleased Providence to make man the student of his own construction, of his own diseases, and to bid him search abroad in nature for whatever can serve as remedies for his ills. The task was a difficult one. Two parts at least of this triple lesson could be learned only by inspection of the human body, and this was a closed and sealed book. The early students did what they could; they brought great minds to the work, but there are limits even to the powers of genius. Something they learned, but more they conjectured; and uniting their facts and their fictions, they constructed ingenious, perhaps plausible theories. confound or confirm these speculations, was equally impossible. medical system of Hippocrates, like the mythology of his own time, could not be assailed by reason, for the lack of facts; its best claim to credit was the want of something better; it was received by faith. But faulty as this system was, it assumed the garb and condition of a science, then folded its arms in a dignified repose, from which it was scarcely roused through a period of 1600 years.

Progress was reserved for modern times. The spirit of inquiry, which marked the "revival of letters," and gradually matured several of the physical sciences, was felt in medicine; but it was felt as the slowly awaking sleeper feels the influence of objects which surround him,—the realities that impressed the senses were strangely mingled with the visions of the dream. At length the book was opened—that

sealed book! May I not call it the book of life! Life for the living, life to many who were ready to perish? Few at first were the readers of its wonderful contents; yet in a period of one hundred and fifty years, human anatomy became a science, and was well nigh perfected. Still the time had not yet arrived for the equally successful study of disease.

Superstitions are hard to overcome. To destroy one of them, a revolution was no less necessary than to remove the abuses of a monarchical system of government. The earthquake, which in France whelmed together king and nobles, religion and priests, engulphed, at the same time, that superstitious reverence for the dead body, which, for so many centuries, held man in the most deplorable ignorance of the real nature of his most fatal physical ills. Indeed, it is no pleasant reflection, that the feeling which so long deprived the world of this inestimable knowledge has, in all times and in all countries, been the offspring,—illegitimate, indeed,—vet the offspring of religion; and that the only country where, at this moment, it does not seriously impede the advance of knowledge, is that in which the delirious multitude impiously declared religion to be a fiction, and God a delusive fancy; that in which familiarity with official public murders wore out the last sentiment of respect for the untenanted corpse. It may require some reflection to understand the Scripture: "It is sown a natural body, it is raised a spiritual body." It does require some study of the atomic changes in nature, and of the reciprocal relations of growth and decay, to know that the reconstruction of our bodies, with the identical physical elements they possessed at death, must be impossible; yet, it is matter for congratulation, both to the profession and the public, that, by intelligent men at least, the obstacle here referred to is no longer thrown in the way of progress. The first, then, and vastly the most important of the means by which the modern improvements in medicine have been secured, is the inspection of the dead body.

At this day we need not fear to look this whole subject in the face. Philosophy, physical and metaphysical, is on the side of knowledge. Why do we protect the resting places of the dead? The respect and protection we offer to the image of the departed is a tribute of the living to their memories,—not their bodies. It gratifies us,—not them. It is worth and virtue we commemorate. These are not dead,—they never die. The lifeless body feels nothing of the honor with which we strive to invest it. When we hang over its narrow bed the sword of the law, it is in recognition of the sympathies of the living. Those mortal



remains consigned to the earth in heart-stricken sorrow and with holy rites, in a few short months, where are they? They have left the rest to which we consigned them. The constituent particles of that body live again in the grass that covers the field, in the sheep that feed upon the pasture, in the bird that sings from the grove. Nature has proved its resurrection-man,-has dissected it, and distributed it portion by portion to new creations, all of which must in their turn decay and give their elements to still other and newer manifestations of the great undying life. Yet we venerate that resting place, and our feelings are outraged if it is desecrated, notwithstanding nature herself may have already removed from it all that once was dear to us. He who this morning walked solemnly to the churchyard and bowed himself at the grave of his mother, as he dropped a tear on the sod now sunken below the level of the surrounding earth, and there prayed to God to make him worthy of such a mother, thought only of the patient love and tried virtues of her, of whom the earth now retains little beside the marble tablet that records her name. But he passed into the business and bustle of life, a better man, for this act of devotion. It is right, then, that the place of burial should be consecrated, should be protected by the law, yet not for the dead. Human law cannot confine those bodies in the grave. The Creator, who formed them, has use for the physical elements He lent them for a time; and His law cannot be long defeated in its aim, whatever disposition man may make of them. No; it is for the living we guard these holy grounds; for those whose sympathies are with the dead; for those whose hearts are softened and made better as they recal there the worth and love of the departed.

May we not find in considerations like these a principle which can be so applied as greatly to benefit the living, and yet violate no sympathy of the heart, nor yet infringe in one jot or tittle the law of nature regarding the dead? Let us protect and cherish natural and proper sentiments wherever there is an eye to weep or a bosom to feel, whether it be found in the mansion of the rich or in the cabin of the poor; nay, though that eye be dimmed by excess, and the bosom be hardened by crime, still where a human sympathy remains, let us extend over it the protection of the law. Beyond this, what is there but superstition and prejudice? Beyond this, do we not wrong the living by shutting up the avenues to knowledge; a knowledge, too, which reaches the health, the physical integrity, even the life of every man? Beyond this, do we not print on our statute books an absurd-

ity, a folly? Let it not be thought irrelevant that I refer to the statute-book. The Pharaoh that knew not Joseph is held to have been a hard master, when he said: "Go now and work, for there shall no straw be given you, yet shall ye deliver the tale of brick." But even the hard-hearted authorised the order: "Go ye, get you straw where ye can find it." But we; are we not beaten if we deliver not the tale of brick? And yet more surely are we not beaten if we get us straw where we can find it?

Another valuable agent which the profession has called to its aid in this work of progress, is a more rigorous method of study. In the time of Stahl, or even of Boerhaave, to have applied the inductive mode of reasoning to medicine, would scarcely have produced better results than the application of the same method to the Æneid of Virgil, or to Childe Harold. Indeed, facts being the only material induction can work with, I believe the latter of these poems a more appropriate sphere for it, than medicine in the 17th century. Shakspeare says:

"The lunatic, the lover and the poet Are of imagination all compact."

Without serious violation of truth, he might perhaps have added to this class of dealers in "airy nothings," most of the physicians of his own time. But when at length anatomy was nearly perfected; when, the circulation of the blood had been demonstrated; when, through the labors of here and there an isolated student, a few newly discovered facts were made known regarding the real nature of disease; when, by the gradual advancement of other sciences, here a ray and there a beam of light fell on our profession; then arose such men as Morgagni, Haller and Hunter, who could not only approach facts already known in the spirit of pure philosophy, but feeling the need of new facts to solve a thousand doubtful questions, sought them with that rigid scrutiny and simplicity of purpose which alone can discover them. Whether these men were like the hands on the dial of the clock, an index of the spirit of their time, or whether they led and formed the professional mind of their age, they must be regarded as marking the transition period, the reformation in medicine. Not that the principle of induction was born with Hunter, or even with Bacon. It controlled the great mind of Aristotle, and governed the mathematical studies of Archimedes. It doubtless formed a part of the mental constitution of the first man, Adam. Our worthy progenitor has not, it is true, left on record any exemplifications of this quality which astonish us, but it is an element of every well regulated mind; and wherever there are facts to be compared, and at the same time patience and a philosophic spirit to collate them, there shall we always find the results of the inductive method. It being, however, no part of my present purpose to oppose the claims of Adam, as a philosopher, to those of Lord Bacon, I proceed.

Another vital fact in the history of medical progress, was breaking the chains of authority. Freedom of opinion has been found no less necessary to advancement in medicine than in the science of government, (and, it may be added, it has been the parent of absurdities equally startling in both.) When the sons made the doctrines and practice of the fathers their only study, and believed that more than they had taught was heresy, that less was culpable omission, what chance was there for improvement? It is, I believe, because authority and the fathers rest on the shelf, and the profession has sought to read nature without an interpreter, each man for himself, that we have been able to reform the errors of the past, and raise medicine to the first rank among the sciences. I respect the great names of other days; and when I read what these men have written, I wonder that with their scanty facilities they could have learned so much; yet their truths are mingled with so much error, their facts with so much conjecture, that I rise from the perusal with the conviction that except so far as their writings form a part of the history of medicine, there is but a small measure of good to be obtained from them. We read the works of Hippocrates and Galen with feelings akin to those inspired by visiting the architectural ruins of their once proud countries. We admire the bold span of the broken arch and symmetry of the fallen column; we enjoy for a time the solemn stillness of the solitude, and love the classic, lofty associations that linger there; yet if we require shelter, we seek it not under these roofless walls, but within some neighboring and more modern edifice, which has been constructed in part, at least, of materials taken from these majestic relics of the past.

The fourth cardinal fact connected with this history of progress, is the cultivation and improvement of the collateral sciences. Man is not, as some would have us believe, a creation of chemistry, merely a union of chemical phenomena; yet it is wonderful how many of the facts of this department of science are illustrated in the functions of the human body, how many of its laws are made subservient to the

life and comfort of man: nor is he simply a bound volume of mechanical laws, as was once believed; and yet there are few principles of mechanics that have not been applied to his construction. Light, electricity and heat; these, too, in certain important manifestations, have been subjected to the dominion of life. Physiology derives its chief interest from chemistry and the microscope. Chemistry and botany are the principal sources of our medical agents. Surgery borrows largely from mechanics and the arts. Physical laws expound to us the nature, and teach us the progress of many dangerous diseases. These are some of the numerous points of the dependence of vital science on physical. The phenomena of the body are more complex than those of inorganic matter, and many of them are only made intelligible when the physical element is studied apart from the vital. To use a single familiar illustration, how fruitless were all attempts to comprehend the function of respiration, and the laws of animal heat, till the properties of oxygen, and the relations of that substance to common air, were first ascertained. Thus, then, medicine must needs wait on the progress of her sisters; thus the collateral sciences were advanced, and some of them nearly perfected, before medicine felt in any notable degree the onward impulse.

And now, it may be asked, what have these combined agencies accomplished? In answering this question, I might refer to the ruins of a thousand fallacious theories; to the rock-based foundation of modern medicine, laid by Harvey, in the discovery of the circulation of the blood; to the immortal discovery of Jenner, by which the most loathsome of all diseases has been well nigh banished from the civilized world; to the science of anatomy matured; to the extensive acquisitions of pathological anatomy, showing how it has taught us the existence of diseases never before suspected, and, by teaching us at the same time their nature, has taught the indications of cure; how it has taught us to cure diseases hitherto regarded as incurable; how it has taught us to alleviate or delay the issue, where we cannot cure. I might refer to materia medica, wholly regenerated, and greatly extended by the frequent and rich tributes claimed in its behalf, by chemistry and botany, from the earth and sea: to physiology, renovated in twenty years by the efficient aid of experiments, chemistry and the microscope, and at this moment making rapid acquisitions of new truths, and facts explanatory of old ones: to surgery, with its thousand new inventions to torture the limbs of men into becoming straightness; with its ready plastic art striving to correct the errors of nature, by patching the defects in the front of the garment with clippings from the skirts; with its numerous maimed mementoes of a negotiation daily made with death, bribing him to relinquish his claim to the larger part of his victim, by surrendering to him the smaller; with its letheon—

"Animæ, quibus mutila fato Corpora debentur, Lethæi ad fluminis undam Securos latices et longa oblivia potant;"

So that the surgeon's knife has now no sting, and an amputation is to the patient and surgeon alike a mere pastime. I might refer to the valuable labors of Avenbrugger and Laennec, by which our art has been enriched with the means of recognising at an early and perhaps curable stage, those formidable diseases of the chest, which have always been looked upon with so much dread both by the public and the profession; to the thousand improvements in hygiene, which are given to the public with so liberal a hand, that they receive them without asking their source, and enjoy them as they enjoy the common bounties of Providence, without acknowledging or even knowing their obligations for them. I might remind you of the lunatic freed from his chains, and raised from his dungeon, to be restored to some of the sympathies and comforts of life; or to the crowning improvement of them all, the multiplication and strictly medical organization of what are called "Medical Charities," through which, in the city of New York alone, more than 100,000 poor receive the gratuitous services of our profession annually, enjoying the benefits of a kindness as sincere, and a skill as profound as the wealth of the rich can buy. I might refer to other similar evidences of progress, till the enumeration is complete, but it is no essential part of my plan; for though the details embraced in such statements would be a proper exhibition of the improvements in medicine, yet a full understanding of the relations of all these facts implies a more intimate acquaintance with our science than I am at liberty to suppose all who hear me possess.

I therefore proceed next to show that medicine has materially length-ened human life, within the period designated in the preceding remarks as the period of progress. Macauley, in his history of England, says: "The term of human life has been lengthened in the whole kingdom, and especially in the towns. In the year 1685, not accounted a sickly year, more than one in twenty of the inhabitants of the capital died: at present, only one in forty dies annually. The difference between London of the 19th century, and the London of the 17th century, is greater than the difference between London in ordinary years and

London in the cholera." McCullock, (Statistics of the British Empire,) finds that for ten years preceding 1780 the mortality was 5 per cent. annually, and for the hundred and fifty years preceding that date it had considerably exceeded this high ratio,—while during the ten years from 1831 to 1841 it was reduced to 2.5 per cent., and in 1851 to 2.3 per cent.

Dr. Simpson, in his paper "on the statistics in surgery," states, that in 1786 the yearly rate of mortality in the whole of England and Wales was one in forty-two; in 1801, it was one in forty-seven; and in 1831, it had diminished to one in fifty-eight, showing a reduction of annual deaths by 28 per cent. in the short period of half a century. (Dublin Rev. vol. 7, p. 97.)

These statements correspond with deductions from the English parish registry returns, made by a careful student of statistics and distinguished writer of our own country, published in the 13th vol. of the American Journal of Medical Sciences. This registration, however, is incomplete, and the American writer points out the sources of its errors. It is not necessary to specify them here. They are believed to be constant, and nearly equal for the whole period; so that while the proportion of deaths to survivors is rated too low, the rating is equally too low for all portions of the half century. The error, therefore, does not materially invalidate the great conclusion to which Dr. Simpson's figures would lead us. Marshall, in the publication of the bills of mortality, preserved in London since 1629, has given us the fullest confirmation of the same gratifying reduction of mortality, so far as this largest of towns can furnish it. Finlaison recognises it as an important element in the construction of his celebrated Annuity Tables. In conformity with this fact the older Life-insurance Offices of London have been compelled to reduce their premiums, and the London Corporation established in 1720 has twice yielded to this necessity.

Mr. Milne, in making up his well known Life Tables, ascertained with the greatest care the deaths in the town of Carlisle and its vicinity, for the nine years following 1778. They were in the proportion of 1 to 39.99 of the population each year. It is now easy to show, (see Registrar General's Reports,) that for the seven years, ending with 1844, the deaths in this same Carlisle and its vicinity were annually 1 in 52.6. The interval between these two periods is just fifty years, and the reduction of mortality is 22 per cent.

The deaths in the town of Northampton were carefully studied during the latter part of the last century, and compared with the popu-

lation. Dr. Price made this comparison the basis of some of his Life Tables. Here we have another illustration of unquestionable increase in the duration of life. The Registrar General, in his Report for 1847, says of this town: "In the last century, the people here lived about 30; now they live 37 years (thirty-seven and a half). In earlier times their life must have been shorter. Then the community had no skilful physician, no surgeon——an infirmary, a dispensary, a lunatic asylum, and from twenty to thirty educated medical men, are evidence that more care and skill are now devoted to the preservation of life." Thus it appears that although Northampton is even now one of the least healthful of all the smaller towns of England, yet that the decrement of deaths there is equal to 23 per cent. These statements, I believe, exhaust the reliable statistics of England, bearing on the subject in which we are here interested, excepting only those that relate to annuitants and the insured; and these are not at present within my reach.

The inquiry now naturally arises, is this the end? Can the life of man be still further prolonged? We would fain hope that its maximum duration is not yet attained, and this hope is not without encouragement. We learn from the Registrar General's Reports, that the mortality of England was slowly but steadily diminishing, during the eight years from 1838 to 1846. The figures that represent its ratio to the living are for the several years respectively as follows, viz. 2.24, 2.187, 2.29, 2.160, 2.167, 2.12 and 2.082 per cent. But whatever view we are compelled to take of the future, who can doubt the cheering evidences of progress in the recent past?-substantial progress. I will adopt the suggestion of the Registrar General, and assume for the present, hoping soon to demonstrate it, that what man desires most of all earthly things, is secured to him in fair measure by the unobtrusive, unnoticed labors of our ill-rewarded profession. In the lapse of half a century, twenty-eight persons, or if you prefer the lower estimate, twenty-two persons saved alive out of every hundred, all of whom must previously have perished! What are all the other improvements of the same period, compared with this? What, though the arts have advanced so as to cheapen some of the necessaries of life to half their original cost! what, though the electric fluid has become our news-carrier; what, though we boast that steam has been made the day-laborer for the nations: what, though the iron-ways encircle the earth, and daily exhibit, as I believe they do, the highest reach of human power, a perpetual wonder; what, though the steamship equal in magnificence the fairy

palace of fiction, stretching its winged flight from continent to continent; neither of these, nay, all combined, can hardly single out the life that they have saved!

Again, France exhibits to us very strikingly the great results of professional labors. M. Charles Dupin, whose name is a sufficient guarantee for the accuracy of his statements, lately read before the Institute a paper on the vital statistics of that country, in which he shows that from 1776 to 1843, (67 years,) the duration of life had been increasing at the average rate of fifty-two days annually, so that the total gain in two-thirds of a century amounted to nine years and a half; and that in no year of that period, even during the republic, the consulate, or the empire, did the annual increase fall below nineteen days. What a fact have we here! Even during that dread period of French history in which the death-angel assumed the cap of liberty, and taxed the arts for new inventions to destroy life; and during the succeeding thirteen years in which the war spirit reaped an almost unprecedented harvest; when science and arts vied with each other in contributing to this work of slaughter, and the history of Europe is but little more than a history of battles; during all this period, medicine alone lent all its energies to the preservation of life. How striking the contrast! How proud the success! In France, that glutted the guillotine with the blood of her sons, and strewed every battle field in Europe thick with their dead bodies; even in death-smitten France, medicine saved for twenty years, more than war and the delirious spirit of freedom could destroy.

But I shall be told, doubtless, that I am claiming for my profession more than we have any fair right to; that society has improved in all its relations, and that to these improvements are due, in fair proportion, the results which I have quoted. Let us consider for a little in what these improvements consist. Within one hundred and fifty years, the arts have reduced the cost of many of the necessaries of life; but then the necessaries of life have been actually multiplied by this process of reduction, and food, the first of necessaries, has not been cheapened; if its relative money price has not materially changed, its labor cost is greater. The home condition of the laborer, (I speak only of the countries from which I have drawn statistics,) is more miserable than it was a century and a half ago. The rich have, it is true, become richer, but the poor have at the same time become poorer; in other words, wealth has greatly increased, but it is not distributed in other countries as it is in our own. Who that has visited the homes

of labor in England or France, will believe that the over-crowded, half-clad, half-fed population of a manufacturing town can be compared in domestic comfort with the laboring classes of other times, when the housewife wrought out of the noisy wheel and loom the honest, warm, abundant homespun; when the labors of the field brought to a country, not overpopulated, abundance of food; when labor had not yet destroyed its compensation by rivalry with itself; when the infirm poor were not yet so numerous that the benevolent rich could not learn their condition and supply their wants. Who will believe that the crowded, hot, dusty, ill-ventilated manufactory can contribute to health like the open field, where men once labored, with its fresh breeze and its sunshine. The better and middle classes have always been long-lived. Their home condition may have been improved in the period referred to; but have they gained as much as the many, the laborers have lost? I confidently believe that so far from there being a betterment in the social condition of Europe within a century and a half, when a fair balance is struck, it will be found that things personal contribute less than formerly to prolong life. Still it cannot be denied, that in the general improvement of society, something has been done for this great object. It is in cities chiefly that these important changes are seen; and even there they are confined mostly to the rich, or at best are brought by the rich only to the doors of the poor, beyond which they rarely strive to pass. Staying as far as possible the spread of pestilence; improved ventilation in the widening of streets, and in the better construction of dwellings and public buildings; diminishing the causes of disease by the removal of filth, and by a judicious drainage; and the encouragement of personal cleanliness, by making water abundant and bathing cheap; these, no one will deny, are benefits, solid benefits. But all that is valuable in them is based on principles elaborated and expounded by the medical profession. Even the details of the plans by which the public have realized these benefits, have in many instances been prescribed by the profession. There is an implied recognition of this fact, in the name "medical police" which is given to the department that governs most of these things, and still more in the acknowledged necessity that their supervision be mainly entrusted to an "inspector" chosen from the medical profession. These are medical facts popularized, as are a thousand other medical facts in hygiene and the laws of regimen. May we not, then, freely imparting to the public, as we do, the advantages derivable from these things, may we not ask to be remembered as the authors of the doctrines from which these benefits flow?

There is another view of this subject. Among the causes of tubercular consumption, we hear enumerated imperfect protection either by house or clothing, against the vicissitudes of weather; scanty and innutritious food; imperfect ventilation; vitiated air; dwelling in dark, damp places; indifference to personal cleanliness. When it is remembered these are important points among the particulars in which it is claimed that the condition of society has been so greatly ameliorated, it would be expected that this formidable malady must gradually recede before the advancing improvements. But Sir James Clark assures us, (in his book on consumption,) that this is not the case. He has carefully studied the London bills of mortality, making annual averages for periods of ten years, to avoid the influence of epidemics and accidental agencies, and he finds that from 1700 to about 1830, there was no diminution in the frequency and fatality of this disease, but rather that the proportion of deaths from it has been increasing during that whole period. At the same time, this author fully confirms the statement already quoted from the history of England, by showing that the mortality from all diseases, consumption included, has diminished nearly one-half; consumption excluded, more than one-half. I need hardly add, that the profession has never claimed great control over this affection, and that during all the period here referred to, it was held to be incurable. This statement favors a conviction that the advantages we have gained over disease are more in actual practice, than in prevention and hygiene.

But we have facts more directly to my purpose, such as will show the physician's care of the sick, freed from all other agencies that are supposed to have influence in prolonging life; and comparing the results of that care, at different periods, our claims will in no respect be weakened.

Dr. Merriman deduces from the bills of mortality just referred to, the fullest evidence, that in the department in which he was so much distinguished, the most signal improvement has been made. In 1680, one in forty-four died while under the care of the medical attendant; within fifty years from that time, only one in seventy died under the same circumstances; in another term of fifty years, mortality was reduced to one in eighty-two; and in forty years more, (the period ending with 1820,) it had fallen as low as one in one hundred and seven. Here is a condition in which knowledge and skill are left to

work their way unhindered and unhelped. Hygiene has little to do with it; the improvements of society even less. It is nature and the doctor, and how has the doctor triumphed? Fifty-nine per cent. of such as must have died in the latter half of the seventeenth century, saved in the progress of about one hundred and fifty years. This is doing something to lift from the sex the heavy weight of the primal curse, and we challenge, in return for it, their kind regard.

Let us now bring our inquiry nearer home. In the city of New York is a medical charity, which receives a liberal sum of money every year from the treasury of the State. It cannot fail to interest those of my hearers who have been appointed the almoners of the public bounty, that the New York Hospital, whose reports are annually presented to the Legislature in this hall, is an illustration of the great truth which I have undertaken to expound. This institution reaches back to the beginning of the period for which I claim the most signal improvements in medical practice. I have before me a table, formed from personal examination of the records of this charity, which exhibits the mortality, together with the number of patients treated, annually since its foundation. The first fifty years of its existence end with 1842. I find that if this term be divided into periods of ten years each, the progressive improvement is uninterrupted; so that while the relation of deaths to admissions in the first fifteen years was one in seven and sevenninths, in the last five years it is one in eleven and one-eighth. This is a gain of more than 30 per cent., or thirty-one patients saved alive out of every hundred that formerly would have died. Now here is little besides medical treatment. The growth of the city has not materially improved the site of this institution. The same building is now used that was used when it was opened, though others have been added. The wards were no more crowded through the early years than they were in 1842; the comfort of the patient has been equally cared for at both periods; and it is proper to give emphasis to the statement, that in this important result, vaccination has had no part. This inestimable discovery was made, it is true, early in this period of fifty years, but it could in no way have affected this hospital, because small-pox has never been admitted into it since its foundation. What then have we here but improvement in the practice of medicine and surgery? And it cannot but be noticed, that the result here recorded equals, even exceeds, what is claimed in society at large, from all beneficial causes operating together. It is apparent

also since so much has been gained without the aid of vaccination, that great as is the amount of good done by this discovery, it is far from being the only life-saving agency by which the world has been blessed in the past half century.

The important deductions here made from the statistics of the New York Hospital, are sustained by what I have been able to collect of similar facts in the Pennsylvania Hospital, Philadelphia. That institution was opened for the reception of patients in 1752. Its first ninety years were completed, then, in 1842. During this period it received 39,290 patients, and lost of that number 4,120. I have not been able to obtain annual reports, but the deaths for the whole term of ninety years were one in nine and a half of all admitted, while in the last of these years it was only one in eleven and seven-eighths. This gives us the last year better than the whole by more than 19 per cent.; an improvement we could only have been prepared for, after learning the striking facts substantiated by the fullest details from the New York Hospital. Within a few days I have received from Mr. Malin, the obliging superintendent of the Pennsylvania Hospital, statistics that enable me to complete the summary for an entire century. From these it appears that the number of patients admitted, in the ten years ending with April 1852, was 13,472 of whom 1056 died, making the deaths a little better than one in twelve and three fourths. Thus we have a gain in the last ten years, over the preceding ninety, of more than 25 per cent. It is just, however, to state that according to the information received from Mr. Malin, the patients of the earlier period include 4,400 lunatics, and a certain number, apparently not large, of incurables, that are now excluded from this institution after four months. This will diminish the per centage of gain here recorded, about 5 per cent., as nearly as it can be estimated; leaving us the last ten years better than the former ninety, by about 20 per cent. A small deduction must be made from the apparent gains of the New York Hospital on a similar account, but the figures before me show that it is much below what is here substracted from the per centage of the Philadelphia Institution.

In appreciating the value of these facts, it must be borne in mind that the physicians and surgeons to whom hospital duties are assigned, are but the representatives of their profession. They are the exponents, the public manifestation of its condition. What they do within the hospital walls, others are doing in private circles, each in his own

proper sphere. We have unfortunately few authentic records of the war the physician is daily waging with death, besides those preserved in institutions like the two, whose accounts are here presented; and until our legislators can be made to understand the important relations of vital statistics to the well-being of society at large, we cannot hope for much information from more general sources.

Is it not true, then, that medicine is the first of the progressive arts; and not first only, but incomparably above and beyond all others in the priceless benefits it has bestowed on man? Yet who has risen up to give it public thanks for its herculean labors? Who has proposed to commemorate the vast achievement of prolonging the years of the life of man more than one-fourth their former average, throughout civilized Europe and America, in the short period of half a century? When a great canal or railroad is completed, the air is rent with clamors. Men's voices are inadequate to express their joy, and cannons thunder forth their glad congratulations. Orators speak of "the marriage of mighty waters;" and men, as they meet in the street, say, the great work is accomplished. Well, is it not better thus? for what celebration can adequately commemorate these triumphs of medicine! What monument can typify their greatness? Yet we have a right to demand a fair estimation of the value of our profession to society, and an honest acknowledgment of what it has done for the well-being of man. Grant us this, and, by the blessing of God, we will raise our own monument: it shall be the armies of living men our hands can rescue from the grave.

Thus I have attempted to show what medicine has done, and by inference what it can do; the means by which it has made this progress, and the motives that have excited it to exertion. An important inference naturally flows from what has been said. That the condition of the medical profession is the personal concern to every member of society, consequently, a vast public interest.

A virtuous and conscientious course of conduct brings with it its own reward, doubtless. Learning, by the lively gratification its acquisition affords, will compensate many a man for great exertions in its pursuit. Charity doubtless blesses the giver, whatever may be its influence on the recipient of the intended benefit; yet who but an utopian would trust a great enterprise to these influences alone? In all associations of men, from the school-house to the senate chamber; in all the relations of society, uprightness expects and receives approbation, as no

inconsiderable part of its reward; learning commands respect, perhaps even reverence; charity, esteem and love. Is society then just to itself, when it leaves the great work of the profession to go on without its commendation, without its notice? I say to go on, for go on it will. No neglect can stay its progress. There is a thirst for learning in him who has assumed the high duties of a conscientious physician, which deep drafts alone can slake. There is an "esprit du corps" which has risen, and will rise superior to neglect, even to ridicule and detraction. Yet I ask again, is society just to itself, when it leaves to the unencouraged labors of a body of men in a great degree isolated, interests in which every man has so large a stake. Let me step a little out of my course, for an illustrative contrast.

On the 2d of April, nearly five years ago, the city of New York was thrown into mourning by the news that two firemen were suddenly killed in the performance of their duty. The next day the common council was convened, to give expression to this sense of sorrow. The memory of these men was honored with a public funeral. Sermons were preached in commemoration of their virtues and courage, and the city charged itself with the education of their fatherless children. This was as it should be. Whenever personal dangers are to be met for the benefit of others, necessary exposure should be encouraged by extraordinary rewards.

Some who hear me will remember the pageant of the succeeding 12th of July. The sun of that day rose on the national flag at halfmast over all the public buildings of that city. He who passed through the park on the morning of that day, might have seen a platform there shrouded in black, which, though unoccupied, was already surrounded by a solemn, silent multitude. The citizen soldiery was at the same time mustering from every part of the town, for honors had been decreed to the brave, who had fallen in the land of the stranger. Then came the gorgeous procession with crape-clad banners, marching slow to solemn music, and the church bells tolled funereal knells as it passed by. A hundred thousand people read with saddened hearts, on the black drapery of the hearses, the names of the fallen. For three hours that pompous procession marched by, proclaiming that the soldier shall be honored in his death. Then that sombre platform was filled. There sat the city council; there were men old and honored in the public service; and that hushed and solemn multitude, now increasing by thousands, stood gazing on the coffins of the dead. The orator pronounced the eulogy of the fallen, and expressed the sympathy of the popular heart; the minister of the gospel added Christian benediction; and thus ended, in the language of a newspaper, "a scene of mourning and solemn pageantry, such as was never before witnessed in this great metropolis." Thus, then, did glory pay its debt to valor.

That same year another little body of soldiers might have been seen, here at home, making defensive war against an invading enemy. One after another of that little band sunk mortally wounded on their field of battle; and when at length they were gathered to their graves, glory awoke no pæans for them. The public heart, cold as the earth which received their mortal remains, felt no pang. Alas! out of the desolated family circle—out of the profession that cherishes their memories—who was there to mourn for Snowden? Who was there to mourn for Graham? Who was there to mourn for Beals, Hutchinson, Porter, Van Beuren, Hedges, Blakeman, Calhoun, Worth and Leonard? Yet these were among the men who stood between the living and the dead; these were the costly sacrifice, and yet not all the sacrifice, by which the fever pestilence was stayed. And have they died in vain?

But for the conscience that urges us to the performance of duty at every risk; but for the spirit of martyrdom,-I do not speak too strongly, though I say it proudly,—but for the spirit of martyrdom, which the profession inculcates, and which the performance of its duties ripens; and above all, but for that High Court of Appeals, which must so often reverse man's judgment, presided over by Him who hath said: "Greater love hath no man than this, that a man lay down his life for his friends;" but for these things, they had died, perhaps, in vain. Yet they fell at their posts, surrounded by known and appreciated dangers; the soldier could do no more. May I not ask, then, disclaiming all desire to underrate the soldier, or to abate one tittle of his high repute among men, may I not ask the soldier himself, in what the conscientious physician is less deserving than he? Is the soldier less selfish? Disinterestedness will hardly be claimed as the ruling motive with either. Does he show a more exalted patriotism? He destroys the enemies of the republic; the physician saves the lives of its friends. The soldier's glory is his valor; and yet show me, on all the emblazoned chronicles of his most brilliant darings, acts of more intrepid courage than grace the modest records of our profession.

The pestilence strikes terror to the heart of every man; the physician never turns from it. From the dreadful days when death grew frantic with its own work of slaughter, and Hippocrates stood up to wrestle with it night and day in terror-stricken Athens, to the hour when the affrighted people of our own time fled before the most appaling of all plagues that ever scourged the earth, the physician has never turned his back on danger. Where the sufferer calls, though the way to him and the air about him are laden with the breath of the pestilence, vet he never calls in vain. I have known the soldier of twenty battles turn pale, and flee before the least of the physician's perils. I well remember when, twenty years since, the first blow of this last and most relentless of death's agents fell on the city in which I dwell, how the heart of the brave man became as the heart of the child, how the very name of pestilence blanched every cheek, how thousands on thousands fled, till in ten days the town was emptied of half its inhabi-"Save himself who can," was the principle of the time. Even the ministers of the gospel, one denomination excepted, sought safety in flight. Yet the ranks of the profession were well nigh unbroken. Out of more than five hundred physicians, I could hear of but three fugitives; and out of eighty medical students, then in the city, I could not learn that there was one. I can tell you of a hundred posts of danger where numbers fall annually, and yet their places are immediately supplied by others equally courageous. Of the Irish physicians engaged in hospital practice, one half sicken with fever, and one-sixth die of it; yet the poor in these institutions always have the best medical services in the country rendered gratuitously. Of thirty assistant physicians doing duty at the Bellevue Hospital in New York, during the late prevalence of ship fever in that city, twenty-one took the disease, and five died of it; and even of the nine who escaped it there, three had already suffered from it in other medical Institutions. Yet their ranks were always full; and I speak from personal knowledge, when I say that I know not where to look for a body of young men whose duty is performed with more conscientiousness, and courage, and intelligence.

But why should I multiply instances of courageous charity? They were so common, so much a matter of course, that to perform them is no longer regarded as praisworthy; to refuse to do them, alone excites attention, and that to incur censure; and yet I cannot conclude this topic without noticing the noble acts of the noble men of Ohio. You

all remember how, in 1848, the plague fell on Sandusky city, and made havoc before unheard of in this country. It was estimated that one-sixth of the inhabitants remaining in that doomed city were carried to their graves in less than one month. On the 3d of July, the population was found by census to be 5,667; and of this number only nine were confined to their beds by sickness. On the 22d of the same month, the mayor reports: "It is impossible to describe the desolation that withered the hearts of the strongest; the physicians were worn out by toil and more exhausting cares, and it became difficult to procure nurses for the sick, or burial for the dead." On the 30th, says another report: "The havoc was awful. Our few remaining physicians were flying from one part of the city to another, unable to give more than a few moments to those struck down, and great numbers were doomed to die without a physician or a nurse." On that sad day the plague-smitten city cried aloud for help, and their cry reached the ears of those on whom the sufferer never calls in vain. Lasting honors to the men who responded to this call, in the name of the profession. In a single day, help arrived; and in two days, the six physicians of the town were replaced by twenty-four physicians and five medical students from different and distant places. One impulse inspired these men in their mission of love; one courage sustained them. Through them spoke the heart of the profession. God blessed their labors, and the plague was stayed; and when at length their work of mercy was accomplished, and they had returned to their homes, the mayor, in his proclamation, acknowledging these and other favors, says: "The benefits conferred and the obligations imposed are so great, that words seem powerless to express the gratitude felt for these great and holy and disinterested offices of charity." "For it adds not a little to the meritoriousness of these services, that all compensation from the town and poor was declined;" and he concludes, "Though the citizen of Sandusky cannot find words to express his gratitude, he can thank God that his lot is cast where christian charities grow and flourish, and he can invoke God's best blessings on those who remembered him in the day of his sore distress."

Who can read this simple history, and not feel his heart swell with grateful pride that these men were his brethren; and if, perchance, the unbidden tear dim his eye, let him give it welcome. Such weakness is the foundation of man's strength; such tears water the roots of the most exalted virtues. Such deeds as these possess a moral sublimity

which must make their memory immortal; and if there can be found any thing to comfort us in visiting the desolated scenes of the pestilence, it is that such calamities can develop and cultivate those purest elements of our humanity, which taught the Pagan philosopher, two thousand years ago, to call the physician the merciful "hand of God."

Need I now repeat, that the condition of the medical profession is a vast public interest?

Finally, If the public offer us no rewards, no honors, no encouragements; they give us no occasion to complain of their demands. The profession in this country presents the novel spectacle of a body of men conscientiously forcing themselves to acquisitions of knowledge and skill, not only not demanded, but actually discouraged by those for whose benefit they labor. Medicine is the only profession that is striving systematically to resist the down-levelling tendencies of legislation; the only profession, which every year demands of its votaries higher and still higher attainments.

Now, gentlemen, in view of the past, may we not be justly proud of our calling? In view of the future, are we not prepared to respond cheerfully and liberally to its claims? Medicine demands of us that we be men of integrity and honor, men of character, that she may be respected in us; men of charity, that she may be loved; men of learning, that she may exercise her rightful authority; men of research and labor, that she may claim from each something to be added to the general stock of knowledge. Let us remember that our corporate character is the aggregate of our individual characters; that improvement must be personal; and let our maxim be: "Seek truth, and pursue it."