

**ANNUAL ADDRESS delivered before the Medical Society of the State of New-York,
Feb. 5, 1840, by LAURENS HULL, M. D., President of the Society.**

GENTLEMEN OF THE SOCIETY:

In presenting myself before you at the conclusion of my term of office, I have to regret that continued ill health previous to the meeting of the Legislature, and my official duties since, have in a measure prevented that preparation which in some degree is due to myself, and certainly to the society. For the short time that I shall occupy your attention, permit me to address you on a subject which I trust will meet with a ready response. I allude to the *improvements in medicine* which have illustrated the last half century.

At a time when at least efforts are making to underrate the utility of the profession, and a portion of the community seem to be under the impression that they already know enough of medical science, such a survey may not be without its benefits. It will at least recall to our recollection how much we owe to our predecessors and contemporaries, and it may incite our junior brethren to follow in their footsteps.

The general direction of the present age is favorable to inquiry. Amidst the great changes that society has undergone during the last fifty years, none is more remarkable than the development of intellect in every employment of life. It would be unjust to say that this has not always occurred. Certainly great talents have at all times from the earliest ages appeared on the theatre of action, but the great mass of the community have been far from being extensively influenced by them. Conquerors have overthrown empires and erected new ones but the inhabitants have only passed from one state of servitude to another.

It was not until the invention of the art of printing that a medium of communication was afforded capable of diffusing light and knowledge amongst all the human race. Even then centuries were necessary, before the ability to apply its advantages was attained, and even now in many parts of Europe, such is the ignorance of a portion of the inhabitants that its blessings are to them a sealed book. But with us and the nations of the old world most nearly connected with us, the art of printing has exercised much of its enlightening influence upon the mind. The revolutions incident to the discovery, that mankind were not exclusively born for the benefit of kings and emperors, have further directly increased the mental energies. And however we may regret the violence which has tarnished these events, yet in this country we have at least to rejoice that freedom of mind and action, is an hereditary privilege. Every occupation has felt this, some indeed from peculiar circumstances and causes more than others, but none has escaped the invigorating stimulus.

Our profession, at all times recognized as a useful one, has with the progress of freedom, become a dignified one, and with the new impulse to scientific discovery, has in several countries, attained to the rank of a learned one. With the increase of its votaries,

new fields of investigation have been thrown open and we are constantly finding that success is attending every industrious effort.

In passing from these general remarks to the selection of some topics illustrative of my subject, I know of none *that* better deserves the first notice, than that of VACCINATION. Although it has frequently been a subject of consideration before this society, yet its abiding interest, as well as its earlier and later history, are striking manifestations of the efforts, and may I not say, of the attainment of improvement by our profession. It is now but little more than forty years since Jenner published his discovery to the world. Previous to that period small-pox had either ranged unrestrained, or if somewhat shorn of its violence by inoculation, still its danger was alarming, and its consequences often fatal. How many communities and even nations have been desolated by this pestilence. Every populous city numbered annually its thousands of victims. Whenever it came among savage nations, it almost exterminated them. Many of our native tribes of Indians were thus reduced to a handful. The efforts of physicians to diminish the mortality, were not without some success, and where inoculation became the prevailing practice, and a proper mode of treatment was pursued, many persons were saved. But among the poor and the thoughtless, this precaution was constantly neglected, and accordingly at intervals of a few years, the disease, as an epidemic, would suddenly make its appearance, spread itself with inconceivable rapidity, and destroy most of its subjects.

It was to preserve the human race from the constant visitations of this desolating scourge, that Jenner studied and investigated for nearly twenty years before he announced the nature of the vaccine disease. It is in vain *to* endeavor to deprive him at the present day of the honor of the discovery, by attributing the first use of it to the Chinese, or by bringing forward cases of inoculation with it previous to his time. If there were such, they were either not heeded, or ridiculed. We know that Jenner himself was reproached with too constant and unremitted attention to this subject, that he was refused the publication of an essay on it in the transactions of a learned society, and that he finally came forward supported mainly by the hope of doing good. He was met by warm friends and violent enemies, and while we concede that some of the last were of our own profession, we are at the same time enabled to say, that they were not among the most eminent or the most enlightened. All of these last, as they became acquainted with the subject, ranked themselves amongst his disciples; and it is only to be regretted that some were desirous of engrossing too much of the merit due to him alone. It is not at all improbable that the ambition of some men in London to be in the possession of influence and power in directing the vaccine inoculation, produced an injurious effect. They pursued it in the midst of smallpox hospitals, and in some instances, the matter of both diseases became mixed.

Such were some of the obstacles which met Jenner on the promulgation of his discovery. There are others which have constantly attended it. No sooner was its protective influence generally credited, and the mode of performing inoculation disseminated, than the idea became prevalent that all and every one could introduce it, without medical advice or examination. It was in vain published abroad, that the matter

might be spurious, that the vaccine disease had a regular increase, progress and diminution, characterised by peculiar appearances in the vesicle, and that this might be counteracted by other diseases in the system. It was in vain urged that there were constitutional symptoms necessary to be present, and again that any injury to the vesicle might destroy the protective power of vaccination. Disregarding these admonitions, the matter was introduced with a pin, a knitting needle, *or* a knife, and when it was once inserted, no matter at what stage it had been taken, but little attention was subsequently paid to its further effects. It seemed indeed, as if many supposed that from that time forward, small-pox was extirpated, and that no more care was necessary to guard against its ravages. We have of late years found the melancholy opposite of this. The epidemic has extended itself far and wide, and in numerous instances it has seized those who were thus imperfectly protected.

I am certainly warranted in ascribing the presence of the varioloid, which is nothing more than a mitigated form of small-pox, to the cause now stated. But in connexion with this we have also learnt, that even in these cases, vaccination, although not a perfect protection, has greatly diminished the virulence of the original disease. In this country, from the day of the introduction of vaccination, the medical profession embraced its use with one heart and one mind. The impediments to its complete triumph have been those on which I have already dwelt. The present generation do not sufficiently estimate the danger of former times, and there is therefore a growing indifference to the proper diffusion of vaccination.

I have for some time felt a perfect conviction that the government should in some way or manner interfere to render its practice general and satisfactory, and I am happy to find, from communications to the State Society, that I am not alone in this opinion. If a provision could be obtained, preventing the admission into common schools of any pupil, without a certificate from the physician that he or she had been properly vaccinated; and if a register could thus be kept, a foundation would at once be laid for the general introduction and proper continuance of this important preventive. Along with this, some aid should be bestowed on institutions for keeping up a supply of the genuine matter.

In all these observations, I have not adverted to the fact, that physicians at once lost the most profitable part of their practice, by the introduction of the Jennerian discovery, and that they most cheerfully resigned it. A single example of this kind is sufficient to confute the many stereotyped slanders against the profession. A new era is, however, apparently rapidly approaching us on the subject now under consideration. It is well known that Jenner was of opinion during the whole course of his life, that the variolous and vaccine diseases were once the same, having received their present peculiarities from being transmitted through the human and the animal race, for a long period of time. The name that he gave the latter, (*variola vacciva*) is a full proof of this. Now amidst the numerous instances of the failure of vaccination as a complete protective, it has become a frequent subject of discussion and inquiry, whether during the last fifty years, the vaccine matter in passing through the human system, a repeated number of times, may not have lost its power. And again, another idea has been broached, that infants, although

very properly vaccinated at an early period of their lives, may not, as they grow up to manhood, undergo such constitutional changes as to injure the efficacy of the first operation, and require revaccination. It is not to be denied, but that there are many startling facts which give an air of probability to each of these suppositions. What, let me ask, is the conduct of medical men on these important questions? They do not sit listless, nor abandon *the* inquiry, nor yield to despair of overcoming the dreaded evil of new eruptions of the scourge. In every part we find them engaged in new researches. In England and France, fresh matter has fortunately been again obtained from the cow, and experiments with this are in a rapid course of trial. It has been transmitted to this country, so that *we* also may, if possible, reap the benefits. Revaccination also, at the suggestion of physicians, has been extensively performed with remarkable results, showing that at least a large proportion of individuals previously vaccinated were left unprotected. Have we not reason to hope that when so many ardent and enlightened *men are* engaged in this inquiry, they will yet complete and confirm the benefits of the discovery of the immortal Englishman.

But I have probably dwelt too long on this engrossing theme, and must hasten to the consideration of another. The fear of contagion has long exercised an undue *influence* over communities. I speak not now of those complaints which are known to propagate themselves by contact, as measles, scarlatina and the like. Fortunately the human race are generally liable to but a single attack of each of these, and it seems kindly ordained that there are always a sufficient number exempted, to watch over and take care of the new subjects of them. Families are not broken up by their appearance, nor are the common duties of humanity neglected in any portion of society. But how different has it been with the class of febrile diseases, *that* were usually termed contagious. Taking Turkey as an example, though not without near approaches to it in other countries, we find that whenever their epidemic plague breaks out, the unfortunate sufferer is abandoned by friends and attendants, and left to linger out his miserable existence without aid. Houses are deserted, and whole districts depopulated. Even with the yellow fever of our own and tropical climates, what consternation and horror seized on all apparently within its influence. How much misery has been accumulated, from an apprehension that this disease could be communicated by contact. It is from such mistaken ideas, that the ancient institution of quarantine took its rise, and which is even now in full vigor in many parts of Europe, confining the passenger who comes from *a* merely suspected port, for twenty or thirty days on board his ship, or else immuring him like a prisoner on the shore for a similar period. Nor is the dread confined to human beings. Letters, and even gold and silver coin, have to *be* subjected to the purifying process, before they can be touched. Apart from the serious injury to commerce, and the free intercourse of mankind, such regulations are calculated to cultivate a fearful depression of mind, which operates with redoubled force in periods of sickness. Sometimes indeed the precautions become ridiculous, as when France, not many years since, placed an army of men on the borders of Spain, to keep out at one and the *same time*, liberal principles and the yellow fever.

I claim for the medical profession, that it has, both in this country and abroad, been

the principal means of enlightening the public mind on these most mischievous doctrines. The idea that diseases mainly dependant on local causes, which probably vitiate the air in the situations where they break out, can be carried into healthy parts, and there propagate themselves, has been amply refuted in a thousand instances. Instead of believing that the air around us is thus impregnated with poison, physicians have taught the public to look at their own residences, whether in the city or the country, for the reasons of the propagation of fevers. If any principle can be deemed well established, it is that filth, poverty and vice are the aliment which nourishes them, which envenoms their attacks, and exalts their mortality. If society be once deeply impressed with these truths, the consequences cannot fail to be salutary. Instead of abandoning the wretched and destitute, they will be more carefully watched—they will be removed from their dangerous dwellings to infirmaries and hospitals, and that attention which is indispensable as to cleanliness, sufficient diet, and proper medicines, will be duly bestowed, not alone for the removal of existing disease, but in the full expectation, that the causes of it may thus be altogether obviated. Instead of tracing a fever from Boston to New-York, from New-York to the West-Indies, and from the West-Indies to Africa, our citizens are beginning to apprehend, that when a virulent fever breaks out, even under the most suspicious circumstances of importation, there must be something at home, on which it is enabled to seize, in order to continue its propagation, and they are thus taught to know, that the vitiated air, whether of dwellings, or of a neighborhood, has frequently been mistaken for atmospheric contagion. Even the farmer has been instructed how marshy grounds, decaying vegetables, and possibly animal putrefaction, may impair the healthiness of his residence.

That there are diseases whose rapid spread we can hardly explain, except on the idea that some matter, capable of producing them, must be carried along in the air, will not be denied. Of these, none are more striking in their character, than the influenza and the Asiatic cholera. From undoubted history we can trace their progress over nearly the whole of the habitable globe, commencing in Asia, gradually marching over it and extending to Europe, and finally spending their force upon this continent. But we have no proof, although it is credited of the latter, that *these* diseases are communicable by personal contact.

Passing from the consideration of improvements which have so distinctly meliorated the condition of society, that the most willful cannot avoid acknowledging them, I would next briefly advert to the individual advancement that has characterised our science of late years. Never have there been a greater number of ardent investigators devoted to this, and they have laid all the kindred sciences under contribution. No sooner is a new substance discovered by the chemist, than ingenuity is on the watch whether it may not be usefully applied in medicine. The history of iodine is not one of the least remarkable of these. Discovered accidentally by a manufacturer, its curious properties at once attracted the attention of scientific men. With the progress of analysis, it *was* found to be contained in various substances, and amongst others in the sponge. This latter substance had for some time obtained a local reputation in the treatment of goitre or swelled neck.

A physician, aware of this fact, ventured to apply iodine in its pure form, and the result proved that it was an agent of great power. No doubt now exists as to its influence over the glandular system, and the only *question* now is, under what form it can best be used, so as to obtain its full value without any hazard. It has also from analogy been advised in the treatment of scrofula, but I believe that medical men are far from being agreed as to its utility in that complaint. This article is only one out of many that have been introduced from the mineral kingdom in the *materia medica*.

As if to shame the deluded followers of an exclusive treatment by vegetable remedies, we have the extensive contributions of physicians both at home and abroad in elucidation of the properties of our own native plants. To the industry and talents of Bigelow and the Bartons, we in this country owe the accumulation of a vast store of information well arranged and immediately applicable to the treatment of diseases. The moment that it can be shown that any of our native herbs possesses qualities in any degree or manner superior to those in use, medical men do not hesitate to ascertain its virtues. Every periodical bears testimony to this. And it is highly probable that all the knowledge assumed by pretenders, has been gleaned or stolen from professional works. In spite however of the extension of science, the work of destruction goes on. A medicinal article it is urged, can at least do no harm, if it be only a vegetable one, while the deluded sufferers will not remember, that some of our most active poisons are of the vegetable tribe. But enough of this hackneyed topic. It is part and parcel of the deep ignorance which has been permitted too long to hang over a portion of the community. Let us hope that with the diffusion of education its mists will be dissipated.

The successful investigation of the nature of diseases also occupies a prominent place among the improvements of the last half century. It has been a matter of reproach that formerly theory engrossed too large a share of attention. The truth of this may be conceded, but at the same time, it must be recollected, that in medicine, theory is frequently nothing more than an orderly arrangement of a number of facts so disposed, that we are enabled to explain a series of phenomena. The difficulties attendant on this have been well illustrated by the successive changes of opinion that from time to time have influenced the medical world. From the mechanical doctrines of the olden time, to those of Boerhaave, from the theories of Stahl and Hoffman to those of Broussais, talented advocates of each have not been wanting, and all have added new and interesting facts to the history of science. But the character of the last half century has in general been infinitely more practical. Not contented with dry discussion, many have been most earnestly engaged in actual examination, and the department of pathological anatomy has been most successfully cultivated. If there be any truth in the axiom, that in order to treat a disease properly, it is necessary first to know its nature, then all must concede the importance of the inquiry. Indeed the pursuit cannot fail of increasing that knowledge which is most needed, if we only keep in view at the same time, the possibility that morbid appearances may be occasionally the results, instead of the causes of disease.

Apart from the new light thrown on the nature of fever by these inquiries it is sufficient to recur to the information obtained, as to the origin of that wide spread and

destructive disease, consumption. The early stages of its commencement have been elucidated, and something has been learnt, as to warding off its progress, but unfortunately we are yet to find a remedy that can stay its ravages. Nor are the inquiries concerning nervous diseases without important value in medical practice, founded as they are on some of the most brilliant discoveries in anatomy of these later times.

I do not feel myself competent to detail even a tithe of the modern improvements in surgery. Men of great talents have appeared in this department, and they have obtained their reward in the acquisition of wealth, and the establishment of a high and extended reputation. Not to speak of living merit, it is sufficient that we in this country, are enabled to boast of a Physick, as equal at least to any that Europe has produced. The surgeon indeed has a great advantage over the physician in that his operations are witnessed by numbers out of the profession, and even if he performs them with merely manual dexterity, he is sure to find numerous heralds of his fame. The effect of this has sometimes unquestionably proved injurious.

It cannot be denied that some surgeons have been too fond of operating, and have not sufficiently reflected whether this was on the whole required or not. It would seem to be sufficient, if they can acquire some temporary eclat, without duly considering whether the event may not shorten the life of the patient. I am therefore proud to mention among the real improvements even of the present time, that the best and most experienced surgeons unite in acknowledging that formerly they operated too often. It is stated in a late journal that Dr. Gibson of the University of Pennsylvania told his class this winter, that in a recent visit to Loudon, he asked Sir Benjamin Brodie whether he performed as many amputations for diseases of the joints as formerly? The reply was "Oh no, not the twentieth part." How then do you manage? By rest, position, splints and diet – was the answer. I am also told that Sir Astley Cooper and Mr. Lawrence have quite lately published a declaration to the same effect as to operations in general.

I will only occupy your attention with a single topic more in elucidation of my subject – and which I feel I can do in especial reference to those whom I am now addressing. It is surely not saying too much that the establishment of medical societies has greatly tended to improve our science during the last few years. They are established far and wide and each has done something to increase or to diffuse knowledge. They are eminently calculated for these purposes if the members will duly appreciate their privileges, and exert their talents. It is only to be regretted that their true value is not more steadily kept in view. Besides the communications that may be read, great benefit has also been received from amicable discussions on them, and thus a facility both of speaking and writing has been acquired by many.

And now gentlemen, while on the eve of retiring from the honorable situation of President of your body, allow me to return you my thanks for your kind indulgence, and for the aid which you have always cheerfully extended to me in my attempt to perform the duties necessarily connected with that office; and to express my most cordial wishes

for your prosperity, both as an institution connected with the best interests of our people and as individuals.

Permit me in conclusion, to express the hope that we at least of the State of New-York may not be among those who contemplate with indifference the improvements in the science of medicine.