

Carson (Jos)

ADDRESS

BEFORE THE

PHILADELPHIA COUNTY MEDICAL SOCIETY.

DELIVERED

JANUARY 30, 1862.

BY

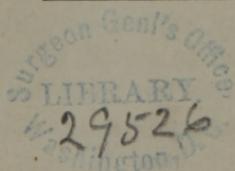
JOSEPH CARSON, M. D.,

AT THE CLOSE OF HIS OFFICIAL TERM AS PRESIDENT.

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## ADDRESS.

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GENTLEMEN OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY:—

AT the conclusion of the official term, when resigning to my successor the presidential chair, in which I have been placed by your complimentary suffrage, I feel it to be proper that I should return an acknowledgment of the high honor you have conferred, and express to you the satisfaction I have experienced in presiding over your deliberations. Surrounded as I have been by friends and professional compeers, the intercourse has been productive of the greatest pleasure. Our meetings have been characterized by harmony and an earnestness of purpose befitting gentlemen having in view such elevated objects as self-improvement, the advancement of their profession, and the promotion of esteem and courtesy.

The past year has been a trying and eventful one. It has seen our country, from a state of profound peace, successful enterprise, and prosperity, plunged into intestine war, alarm, and apprehension; yet have we been permitted, amidst the ferment of surrounding distractions and excitement, to meet in counsel upon the interests of our calling, and to calmly and conscientiously discuss questions connected with the welfare and happiness of humanity. With a spirit true to the design of its organization, our Society has pursued its course of labor and emulation in the path of duty, evincing on the part of its members zeal in the exercise of that benevolence which is founded upon "universal good will toward men." In the performance of the last special duty which devolves upon me, the delivery of the Address expected of the retiring presiding officer, you will permit me to present some reflections

upon the profession in which we are all deeply concerned, and which as the business of our lives we proudly cherish.

It must be clear to every one who has examined the subject, that the medical art has existed from the earliest period. Whether traditional or historical, the testimony is conclusive, that whatever may have been its form, it has always had being. Originating in the necessities of the human race, it has been maintained and improved in accordance with man's wants and exigencies, with his physical and intellectual progress, until, assuming the large proportions and the importance it now presents, it ranks among the learned professions.

With regard to medicine, one feature is prominent, which is identity. From its commencement in remote ages to the present time, an unbroken individual existence is exhibited. It has been handed bodily from people to people with all that had been attained of knowledge and experience, an inheritance from an expiring nation to its successors. In this particular there is an essential difference between it and its sister professions. Theology, which is the exposition of the doctrines of our holy religion, which is engaged in presenting the relations of the life that is to that which is to come, dates its origin not two thousand years ago, and has been based upon a new revelation; while the profession of law, which is occupied in expounding the obligations of man to man, or of man to his government, has been as multifarious as the manners, habits, and enlightenment of the various communities that have appeared and flourished, and is in our day the offspring of constitutional authority.

The objects with which medicine is occupied, whose study and investigation constitute its legitimate end, are connected with the exploration of the natural world. In the observation of nature lies the foundation of medical science. This has ever been, and continues to be, her especial occupation, and the closer it has been adhered to, the more numerous and reliable have been the truths elicited.

Placed as the human race has been upon this earth, the first efforts of intelligence must have been in connection with the perceptive powers; the information gained by the exercise of the senses first supplied the food for comparison, for thought, and the expansion of the intellectual faculties. Man slowly penetrated

into the mysteries of nature, and adapted the knowledge that he acquired to his necessities. His faculties led him to the trial of expedients for their relief, and with the capability of applying the resources by which he was surrounded to his purposes, he gradually acquired self-reliance. One frailty has always been prominent, inseparable as it is from the delicacy of his organization, and the never ceasing impression of the physical influences to which he is exposed, a liability to sickness and death. To combat such tendency, and to antagonize the malign impression of exterior agents, as well as to remove disease, have ever called forth his efforts, and quickened his acumen. In the earlier periods of his career, when awe and veneration for unknown and incomprehensible sources of power overwhelmed his judgment, and vividly impressed his imagination, belief in the supernatural may have led to superstition, to credulity, and to an appeal to the extravagant devices, which were used, not unfrequently, to cover up the real means of alleviating sickness and suffering; but with advancing intelligence the truth could not be disguised or overlooked, that remedies were to be derived from the natural world, and that upon the appropriation of them, and their skilful use, depended the success that was desirable. The medical art then gave an original impulse to the examination of nature, and hence it is that medical science thus arising is to be ranked among the natural sciences, or, more properly, as into it have been directed the results of investigation in the departments of natural science which have been made subservient to it, we may regard it as their embodiment.

Among medical men it has been too much the case to regard the natural sciences as extraneous to their professional pursuits, and to suppose that he who indulged in them placed himself without the pale of legitimate medicine. Upon examination and reflection, however, it will be found that the line of research and investigation is the same, and that the means of exploration and the course of reasoning, to be effective, are identical. The physician, in the strictest sense, must be imbued with the spirit and habit of thought of the naturalist, or he is not a physician, he is degraded to the quack or the charlatan. Be it admitted that natural history has been divided into specialities; that each has attracted assiduous application, and has been placed in bold relief by enthusiastic cultivators, who have even devoted a lifetime to its investigation, still,

in the nature of the subject, and in the method of its study, our science is pre-eminent as a natural science. Zoology includes within its domain the study of man with that of animals, not solely with the view to his position in the scale of beings, arranged in accordance with genera and species, but with respect to his especial structure, the inherent nature and arrangement of his organs and tissues, and their physiological manifestations compared with those of inferior animated existences. By the extension of inquiry, pathological transformations, and phenomena, with the modes of counteracting them, are so identified with this great branch of natural science as to be necessary for its completion. The elucidation of the nature and the course of structural aberrations, aided by all the appliances which co-ordinate science has placed at the disposition of the inquirer, has been appropriately called the Natural History of Disease. Everything that has been discovered, or is known in the natural sciences, is due to observation, experiment, and induction.

We are accustomed to recognize Hippocrates as the "Father of Physic;" this is to be understood and accepted figuratively. He did not create medicine. His entire lineage was medical; he studied the science profoundly, was its zealous and devoted cultivator and expositor; he improved it and added much as the results of his own observation and research, not only at home but abroad. His journeyings indeed cannot be supposed to have been made without an end or a purpose; they were undertaken that he might inform himself upon the nature of "simples" as well as to obtain information in regard to the experience of others and the discoveries that had been made in the cure of diseases. He collected materials for his essays upon "Epidemics" and "Airs, Waters, and Places," and took the pains to copy the inscriptions in the temple of Ephesus. He co-ordinated his information and separated medicine from the hypothetical abstractions of the philosophers, principally in connection with the origin, the nature, and the changes of matter. He lived in an historical age, the contemporary of Herodotus, of Thucydides and of Socrates, when medicine attracted much attention and had its practitioners separated from the priestly office, when mythology was giving way before philosophy. To use the language of Dr. Adams, "Philosophy, it would appear, freed medicine from the delusions of superstition by substituting the errors of hypothesis in

their place, and the important office which he, who was called the Father of Medicine, conferred upon the art, was by discarding both superstition and hypothesis, and substituting the results of actual observation in the room of both."

He held the opinion that philosophy is not so necessary to medicine as medicine is to philosophy, and insisted upon the fact that disease was cured either by aided or unaided processes of nature. He fixed the natural history method of investigation upon the study of disease and the means of its removal, thus giving "Rational Medicine" to his followers. It is not in accordance with my design to further comment upon the labors of the Coan sage; but one remark is pertinent; his aphorisms constitute a summary of medical truths which have stood the test of ages of experience, and few of them can be gainsaid at the present time with all our light and knowledge.

Four hundred years, then, before the Christian era, we find our science in the foremost rank of intellectual pursuits, respected not merely in consequence of its practical utility, but as an agent in conducing to the development of the mighty truths of nature, which were destined to disenthral the understanding, and rivalling the æsthetic arts which at the period culminated in such wonderful beauty and perfection as almost to induce the belief they were the work of inspiration.

As an emanation from the Hippocratic School, and necessary as a link in the chain of exposition which now engages us, we may fairly regard the scientific labors and reputation of Aristotle. He was born at a period when it was in most effective operation. He was the son of an Asclepiad who, we are told, was the author of several treatises connected with natural science, and it may be assumed that the occupation and studies of the father account for the early inclination manifested by the son for the investigation of nature. Aristotle was a naturalist as well as a philosopher and dialectician, and that he pursued the true method of research, description, and reasoning in his History of Animals, and natural history communications, may be gathered from the fact that the statements made by him have been indorsed by no less authority than Cuvier, who says of him, "He lived but to the age of sixty-two, and made two thousand observations of extreme minuteness, the exactitude of which cannot be disputed by the severest criticism;"

and again recurring to the subject of his reliability, declares "that all the general propositions made by him are inductions, resulting from the observation and comparison of particular facts; never does he resort to *a priori* reasoning."

It has been the custom to attribute to Lord Bacon the invention of the inductive system of philosophizing, and hence the extraordinary advances that have been made since his time in science and philosophy. He was profoundly versed in ancient learning, and thoroughly understood its merits as well as its deficiencies. He saw the road which led to truth as clearly as mortal vision could perceive it, and fully comprehending to what extent reason had been perverted to the support of error in the form of subtleties, laid down with graphic precision the principles by which real knowledge is attained. The transcendent author of the "New Organum" tells us that "there are and can exist but two ways of investigating and discovering truth;" the first to which he alludes is the hypothetical and deductive, the second, "the true and unattempted way," the inductive.

Can he be called the inventor of the inductive method? Had all the science and knowledge that then existed and which characterized the civilization of the age to be repudiated, and, starting anew with his precepts before it, had the enlightened world to re-inform itself, to be reassured upon all truth and all experience, to pour its acquisitions into the alembic of his philosophy and redistil them? Was that grand discovery of the circulation of the blood occasioned by an attentive solicitous perusal of the writings of his contemporary fellow-countryman on the part of Harvey, or was it the genuine offspring of a mind fully imbued with the laws of nature and her schemes of operation, purely the result of observation, experiment and induction, a scintillation of the Hippocratic school of medicine?

Let us accord to Bacon all that may be due him, as one of the wisest and greatest intellects in any age, yet was he other than the luminary that defined the course by which all reliable knowledge had been and was most surely to be arrived at, and disclosed the shoals of error and misconception on which many a genius had been stranded? In the whole scope of his writings and reflections he is nearer to Aristotle than to any one who had preceded him, whom in the universality of his labors he would seem to have

taken as his model. From Aristotle, the Pagan philosopher, he might dissent, but from his principles as a naturalist he could not.

Between the age when Aristotle flourished and Bacon lived to reaffirm the essentials of right reason, centuries had passed, no unimportant period in the annals of mankind. Empires rose and disappeared, through which our science has been transmitted, and with truth may it be asserted, that notwithstanding the vicissitudes of time and place which have been encountered, it has not suffered from neglect or lack of interest with those to whose guardianship it has been intrusted. Natural History continued to be cultivated by the successors of the Stagirite. His disciple, his friend, and heir to all his literary treasures was the earliest systematic botanist, to whom we point in tracing out the history of that department; the "Historia Plantarum" of Theophrastus is a monument of labor and research, as much deserving commendation in connection with the epoch of its issue as will be in future time the contributions of Linnæus, of Jussieu, or of De Candolle. As a result of progress in this direction, medicine avowedly and boldly appropriated natural history to herself, in confirmation of which assertion the work of Dioscorides on the *Materia Medica* may be adduced, the prototype of even the latest treatises; pre-eminent among them is that of the ever-to-be lamented Pereira, the modern Dioscorides.

When Grecian culture and philosophy had passed to Rome, whose forum echoed with her dialectics, medicine did not tarry. The science that had lost its favored domicile and home sought elsewhere shelter and protection. Celsus and Galen are taken as the representatives of the state of medicine, when Rome attained the pinnacle of her power and cultivation. It is not necessary to discuss the question to what sect belonged these prominent expositors of medical learning. The visionary speculations of ancient schoolmen had given rise to numerous fallacies which had disappeared; and the sole antagonism that existed was between the empiric and the dogmatic sects, a distinction which had originated with the school of Alexandria. Celsus is interpreted as inclining to the former, while Galen professed to be a follower of Hippocrates, who was claimed to be the founder of the latter. It is certain that the improvements and discoveries made by either were based upon observation and experiment. As a writer of classical propriety, ease, and elegance, Celsus has left his impress upon medical lan-

guage and terminology, from which other science has been a borrower; and Galen maintained authority until his productions, with other ancient writings, were buried in the cloister, to be reissued to stimulate awakening Europe to investigation and advancement.

But a new branch of natural science was destined to arise and pour a flood of light upon the operations and processes of the material universe. Another nation had started from obscurity. Courageous, adventurous, and bold, it extended its domain from the Arabian Gulf to the pillars of Hercules. Airy and imaginative, yet subtle and ardently inquiring, the striking phenomena of nature were not only the objects of speculation, but invited minute examination and discovery. In connection with the arts and sciences, the Arabians cultivated medicine successfully, they have given accurate descriptions of disease, and they pushed their researches into the constitution of matter, and its metamorphic changes. Chemistry, from the germs that previously existed, became an enduring department. The improvements and additions that were made to medicine by the Arabians are no small portion of the resources with which it has been transmitted to modern times; many medicines which hold their place as popular remedies were contributed by them, and chemical medicines, in opposition to those which were used nearly in their natural state, produced an important revolution in the practice of physicians. The separation of pharmacy from medicine proper had no doubt conduced materially to the result of directing inquiry into the path of chemistry. If only one had remained of all the discoveries originating from Saracenic skill and ingenuity, the art of distillation, which, in its bearing upon subsequent investigations, has proved so valuable, we would be forced to the acknowledgment of an important obligation.

Medicine has been indisputably the foster-mother of the natural sciences, and liberally has she been recompensed for the care and the attention bestowed upon them. From the revival of letters to the present time, the continued study of them has developed resources in every portion of the habitable earth. It is to the honor of the profession that the greater portion of the accurate botanical information now possessed, and frequently the discovery of the most esteemed medicines in use, are due to the enthusiastic labors of its members. The spirit of exploration with medical men has known no obstacles, and in defiance of the risks of inhospitable

climates, of toil and hardships, the tropical forests of the world, as well as scarcely accessible snow-clad mountains, have been perseveringly invaded. We could not specify, within our limits, each deserving contributor to the medical branch of this department; it is sufficient to affirm, that, to the impulse given by Linnæus, the medical practitioner and teacher, and the zealous efforts of his pupils, are we much indebted. The *materia medica* contributions are not the least honorable of the scientific laurels of that prominent and assiduous cultivator of natural science.

From the uninterrupted prosecution of chemical investigation, medicine has derived even greater benefits. That spark which was fanned and kept alive in the hands of an oriental people has, in the advance of civilization among nations hardly then known, been developed into a blaze of revelation. Where the ancients employed the crude products of vegetation under the name of simples, we, by the resolution of them to a simpler state, are enabled to employ their proximate elements. Energy and power have been elicited by processes which skill and practice have invented, and refinements of exhibition have been introduced which have cast into the shade the anticipations of the most enthusiastic. Each medicinal article has been interrogated to reveal its secret composition, with the effect of establishing the fact, that nature's laws are as beautiful and harmonious as her outward manifestations. Medical chemistry has illustrated medical botany, whose families have been proved to be connected not only by structural correspondence, but by yielding similar elementary products. A scheme of scientific divination has thus been given us.

Nor has this branch stopped here in its return of favors. By directing attention to the constituent elements of the solids and fluids of the body, and to the analysis of the materials that are separated by the organs in the performance of their healthy or morbid secretory functions, it has opened a way of investigation which has greatly contributed to accuracy in the diagnosis of disease, and to the assumption of therapeutic measures highly advantageous. With how much veneration will the name of Prout be always alluded to, as the indefatigable and expert promoter of this line of research!

That our science has invariably advanced when its prosecution has been strictly in accordance with right method is amply con-

firmed by the events of more recent times. In the study of the physical and structural peculiarities of the organs, and their abnormal deviations, this especially has been the case, while the science of life, or biology, is so closely connected with the improvements made in other branches, as to receive a reflection from them. All that has been positively ascertained in this recondite and most difficult section is attributable to the closest observation, most guarded experiment, and fair induction. Of how much consequence to scientific medicine were the labors of Bichat, in defining and describing the tissues, is known to every one in the profession. It was a step in the right direction, which entailed results the most important, and has been cited by an eminent non-medical writer as illustrative of an epoch in the account of the progress of civilization. From the teachings of Bichat, physiology and pathology have received the most positive elucidation, while in throwing light upon the arrangement and characteristics of a former world, they have aided Agassiz in his most brilliant discovery, and led to his ichthyological classification.

The starting-point in the determination of the functions of particular nerves originated with Bell, but for the further disentanglement of the functions of this complicated organic machinery, the development of the sympathies, we are indebted to the methods instituted by Magendie, by Hall, and Bernard. Who is not informed as regards the extraordinary patience, care, and reticence that characterized Louis in the decision of a correct pathology for typhoid fever, compared with the vaunting proclamations of Broussais upon his own infallibility? Example upon example might be given of the establishment of irrefragable truths by the correct modes of pursuing inquiries and interrogating nature, which have been employed by leading minds in our profession. Two others will suffice for the confirmation of my position. The detection of the protective power of vaccination was as completely the result of observation, experiment; and induction, as has ever been exhibited in the march of medical science, and the same may be affirmed of the development of the principles of auscultation. Both were in conformity with the natural history method, as decidedly as the demonstration of the existence of a sexual system among vegetables.

It is not necessary for our purpose to enter upon an elaborate exposition of the impediments to the progress of our science in con-

nection with the history of particular periods, when it was either stationary or made little advance in the proper channels of extension. Deference to authority, narrow-minded bigotry, prejudice, and slavish pertinacity in error, conjoined with defective instruments for investigation, constitute the causes of tardy development. Conjoined with these were the surrounding circumstances pertaining to the age, and which illustrate the mental condition then predominant. Still, this may be asserted, that medicine has always been upon a level with the times, and must necessarily be included in an exact elucidation of them. Despite the uniform current in which discovery and positive knowledge have unavoidably flowed, hypotheses have appeared in every age like false lights to delude and lead astray the unwary traveller. The hypothetical doctrines of those rival men of genius and learning, Brown and Cullen, had their prototypes, and with them are now regarded among the curiosities of the literature of the profession. But further, assumption not predicated upon the data requisite to sustain it, inevitably meets, sooner or later, the fate which it deserves. It may speciously be upheld a limited period by eloquence or audacity, but in the end passes to oblivion. Was it by the natural history method that Hahnemann discovered that the itch is the foundation of chronic diseases, that cinchona bark produces intermittent fever, and hence is the remedy for its removal, and that infinitesimal doses of medicines are more potent than the usual quantity—thus, by observation, experiment, and induction, establishing his claims to be a reformer in medical science; or were the pretensions so strange and so extravagant, set up by him in opposition to all reliable knowledge, and in the very face of reason and common sense, the delusions of his own heated and erratic imagination? Pretension succeeds pretension, and thus will it ever be.

But while receiving adequate returns in the form of improvement and discoveries, resources and enlightenment in the prosecution of her function, medicine has abundant claims to consideration from the reaction of her pursuits and the application of them beyond her immediate circle. Each of the sciences that have been sedulously cherished as her own has had an important bearing upon the progress of the human family and its advance from barbarism to civilization. To them are we indebted largely for the food and raiment as well as the sources of material comfort now enjoyed, from which

have sprung elegance, luxury, and refinement, while in their influence upon the increase of knowledge and the expansion of mental power and comprehension, they have done good service. Agriculture and horticulture, the mechanical and useful arts have been aided by these sciences, and by affording the means of cultivating man's high-born qualities he has been raised from degradation as a mere machine of toil and placed in his true position, a created, soul-possessing being only inferior to the angels. How interesting is it to refer to that simple discovery of distillation by a people whose glory and renown have long since been transferred to the narrative of the past, and trace in it the assistance furnished towards the detection of latent heat in the hands of Black, a teacher of Medicine of the justly celebrated school of Scotland, and subsequently the application made by Watt in the form of steam to that locomotive power which has triumphed over time and space and brought continents into close proximity! Did not Humboldt place on record his appreciation of our science, when, preparing himself to grapple with the laws of nature, to explore her operations and phenomena in almost inaccessible localities, to acquire more actual physical knowledge than had ever previously entered the mind of a single individual, he sedulously studied the elementary branches of medicine? That great naturalist, philosopher, and benefactor of his race thus wisely laid the foundation for his aspiration, and terminated his long career with the production of his *Kosmos*.

The medical profession has ever been regarded as one fulfilling offices of mercy and benevolence, approaching the suffering and the afflicted in the darkened hours of their existence, and while ministering to the ailments of the body or of the mind, whispering hope and consolation. It has in charge the vital interests of mankind connected with the most responsible duty that can be imposed, the preservation of health and consequent well being, on which the enjoyment of every other blessing is dependent. It has entered effectively into schemes of utility for the mitigation of the evils of society, and been interwoven with public enterprise for the melioration of vice and degradation. To its suggestion, advice, and active co-operation, the philanthropic and the good have been immeasurably indebted. But with all these important services, its mission has not been completed, for it has been the conservator of sound learning and the promoter of intellectual culture. Its whole

history is associated with the records of the increase of information, and it has progressed *pari passu* with every department of knowledge, psychological, ethical, and physical. It has given assistance in unfolding and enforcing the doctrines of religion, and counselled the jurist in the dispensation of justice. It has illuminated the antecedent conditions of our globe and conduced to the display of plans of construction only possible with omnipotent wisdom. These have constituted the mission, and all of these the entire mission of the medical profession.

Fellow members of this society, a weighty responsibility is placed upon each one of us. We are engaged in carrying out the purposes of the exalted and honorable profession of which we are the representatives, and should heartily unite as colaborers in the great end of sustaining its position and promoting its usefulness. United as brothers in support of our organization, we can make it eminently conducive to improvement and mutual advantage. By the interchange of sentiments upon all subjects pertaining to the profession, we can preserve it from taint, while by communicating the results of our experience and the fruits of our studies, we can promote universal efficiency. By the exhibition of courtesy, kindness of feeling, mutual encouragement, and sympathy, we can diminish the asperities of life and the wear of anxieties inseparable from our vocation. It should never be forgotten by us that while acting in concert for the public good, we are intrusted with the office of interpreter of nature and her laws, that in the spirit of the naturalist our minds are to be moulded, and that while receiving, extending, and applying the great truths which come from the Author of the natural universe we should strive worthily to fulfil our part in the great mission confided to our profession.

