

Bell. (John)

ON THE
INFLUENCE OF MEDICINE.

AN
ORATION

DELIVERED BEFORE THE
PHILADELPHIA MEDICAL SOCIETY,
PURSUANT TO APPOINTMENT.

By JOHN BELL, M. D.

ONE OF THE CORRESPONDING SECRETARIES OF THE SOCIETY; LECTURER ON
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TO
NATHANIEL CHAPMAN, M. D.

PROFESSOR OF THE THEORY AND PRACTICE OF MEDICINE
AND CLINICAL MEDICINE, IN THE UNIVER-
SITY OF PENNSYLVANIA.

Dear Sir—In requesting your acceptance of this Discourse, I must be allowed to add, that my earliest partialities for the Society before which it was delivered, grew out of the animated but ever courteous discussions in which you and the lamented Dorsey took such a leading share. The friend in earlier life of the tasteful and enthusiastic Dennie, and Editor of the choicest examples of the eloquence of the British Senate, you present in later years other claims on public regard in the ornate diction and rich style in which you clothe the elaborate digests of medicine so ably and successfully presented in your Lectures and published works.

Thus much, my dear Sir, of just eulogy I may appropriately convey to you, conscious as I am of having enjoyed and exercised the unrestricted right of free exposition of my sentiments, in all matters of mutual interest and professional importance.

That the pleasurable relations of social intercourse, which it has been my good fortune to sustain with you, may ever continue undisturbed, is the sincere wish of

Your obliged friend,

JOHN BELL.



ORATION.



FELLOW MEMBERS OF THE MEDICAL SOCIETY :

IN attempting, on this occasion, to sketch the Influence of Medicine on the Moral, Intellectual, and Political Relations of Society, I follow no assured guide, and feel that the very multiplicity and magnitude of the materials, arrayed as they are in such bright and diversified colours, would dazzle and confuse even older and more practised observers. But, since

“ Truth and Good are one,
And Beauty dwells in them, and they in her,
With like participation,”

I do not fear of failing to interest you, when I shall exhibit in our profession the union of these qualities imagined by the poet.

In all ages, and in every stage of social improvement and civilization, the ability to relieve suffering and to ward off disease and its concomitant anxieties, has been regarded as the noblest attribute of humanity. It was claimed and possessed by the Egyptian priesthood and Grecian philosophers in the times of paganism; it was miraculously exercised by the divine founder of our holy religion, who ranked it in the first of good works, as superior in efficacy to the learning of the Pharisees and the ceremonies of the Temple. During that long night of intellectual darkness, when bar-

baric sway seemed to have no other impulse but that of destruction, and when every man who roamed abroad looked on a stranger as his foe, religion, learning, and medicine, in triple alliance, sought refuge in the monastery, for each in turn to cast abroad the light of hope, and stay the increasing gloom. The sainted recluse joined to the study of the fathers of the church, a reading of the works of Hippocrates and Galen; and not unfrequently dressed the wounds while he shrived the sins of the way-laid traveller, or knight fallen in battle. In reference to these offices, and similar ones performed in the rude state of all communities, it may be truly said, that, if the first step towards an ameliorated condition of our species be to connect men together by the ties of kindly assistance, and to soften their hearts by making them the subject of benevolent charities, Medicine justly claims the honour of having taken that step. Vainly are we endowed with a social principle, if it be not called into action by the consciousness of ability to benefit others, and of the necessity of being ourselves objects of friendly countenance and support. The stern and unrelenting savage, who roams the wilderness and the desert, ignorant of any compromise between pain and death—of any thing that should alleviate the pangs of bodily suffering and arrest lingering disease—pursues his enemy with unmitigated hate and purpose to destroy. Pity, the offspring of one's own conscious feebleness, and the knowledge and hope of the means of relief, can find no abode in the breast of him, whose only prospect of the termination of pain is in the extinction of life itself. But let the wound have its healing balsam, and even the wild beast of the forest allows its ferocity to be softened by the remembrance of its benefactor—of him who was instrumental in assuaging its sufferings. We are, therefore, justified in believing that, with an extension of the influence of medicine, and a greater

display of its powers, there has been a correspondingly higher estimate formed of the value of life, and greater tenderness and variety in the means of prolonging it through those assaults and trials, under which, whether from others' passion or his own faults, man would otherwise be left to expire in misery and desolation.

Sickness, without efforts for its removal, would produce despondency in some, and apathy in others, to the entire exclusion from the mind of the invalid of the softer emotions of friendship, reliance on others' skill, confidingness in others' watchful love. Recovery of health for a man thus abandoned to nature, would be like escape from drowning to him who had encountered the horrors of shipwreck. He is thrown on shore by the stormy surge, exanimate, lone, and helpless—not piloted through the perilous strait, and, with buoyant spirit, carried past breakers and quicksands into a safe harbour, musical with the hum of peaceful occupation and rival enterprize. In the contrasted picture, on the other hand, of the sick man with his mind reassured by the encouraging presence and systematized attention of his earthly physician, we find him with more leisure and suitably tempered feelings of pious awe, addressing himself to his Heavenly one. During the period of convalescence from disease, when the languor of the whole frame is associated with all the softer and more placable emotions of our nature, no counsellor finds readier access to the ear, or makes a more sure appeal to the heart, of the recovering invalid, than his physician—the one to whom, under heaven, he was indebted for escape from death. This friend does not approach him with the air of a severe censor and inflexible moralist, but as a kind monitor, who gently indicates the deviations from prudence and propriety which led to his disease, and the risk of its renewal, unless due restraint be imposed on all animal indulgence and passionate mental excitement. With-

out a possibility of the slightest suspicion of selfish purpose, this friend points out the conduct which, while it preserves health, fortifies morality; and he leaves the confiding patient open and prepared to receive the holy influence of religion. For so intimate is the connexion between physical comfort and moral well-being, that the one cannot be seriously affected without the other suffering. Nor are the benefits of medicine restricted to the person who is the more immediate object of its dispensations: his family, friends, and dependents, all participate in them; since, under its guidance, their affection acquires a higher value, and to themselves and the world appears in the brighter colours of hope sustained—good nature well directed—intelligence aroused to the exclusion of dullness—and fortitude replacing frivolity, timidity, and unmeaning anxieties.

Thus are hope, benevolence, pity, friendship, and veneration, the best sentiments in the mind of man, called into active exertion and animated display, not less in those who give, than in those who receive, the favours of medicine. This science becomes a bond of sympathy, uniting men in all good works, and strengthening them in all brotherly dispositions. If to love our neighbour as ourselves, be one of the first and chief duties of man, involving in its performance the love of our Maker, surely the sacrifice of ease, and comfort, and health, often without fee or reward, without worldly honour or flattering publicity, or even the distinctly expressed gratitude of the person relieved, may claim for the practice of medicine a conspicuous rank among the virtues of life, and entitle it to be justly called the oldest handmaid of charity—that charity which instigates a man to give with free heart and good intention a part of his best treasure, whether of money or talents, to the indigent, “without designing any benefit or hoping for any requital to himself, except from God, in conscience, respect, and love to whom he doeth it.” The war-

rior, who for glory, the representative of power, advances to the cannon's mouth—the statesman, who toils to be the guide of a nation's destinies, and to have his name transmitted with honour to posterity, find incentives and rewards external to themselves, and not unfrequently destructive of the peace and well-being of their fellow men. But the physician, who visits the crowded hospital, the prison, and the pest-house,—receptacles of hideous disease, and sources of poisonous emanations, hears no voice but that of duty, knows no reward but the pleasure of snatching the unfortunate sufferer from death, and of restoring him to his family and friends—to those who called him father and protector, or brother and friend, or son and only hope. The genial influence and diffusive example of such a profession, must be sensibly felt and observed through the minutest ramifications of society, and thrill on the hearts of all its members. If not an integral part of the social compact, it possesses the unquestionable merit of conferring on the latter much of its interest and value, by imparting efficiency to the dictates of humanity, and grace to the deeds of charity.

As disease acknowledges no privileged exempts, neither does medicine admit the distinctions of pride and place, when dispensing its benefits. There is no graduated scale of professional skill, by which the high and the mighty of the land are exalted in the sight of the physician above the humblest of the species. Our profession, in showing equality in the infirmities, teaches equality in the blessings of life, and necessarily fosters independence of feeling, as we shall soon see to what an immeasurable extent it leads to independence of thought.

In its intellectual range, it is only bounded by the limits of mind itself. It calls for the exercise of all the faculties of our nature, with the superadded strength and versatility which they derive from cultivation. The study of medicine

is the study of man, both as a sentient and thinking being, and of the numerous and diversified agents by which he is surrounded : it embraces a view of nature, human and general, and invokes the assistance of both physics and morals. I am not afraid of being considered imaginative in asserting that the circle of the sciences, and many of the fine arts and letters, are gone over by medicine, in order for it to enlist whatever shall minister to the comfort and well being of mankind, and best guard them against noxious influences from without, and sudden and passionate workings within. Though not a constantly recognized depository, it is an active and intelligent prompter, a powerfully protecting ally of every branch of useful knowledge. Let the range of inquiry, to which its advocates may rightfully lay claim, and the literary history of its professors in all ages, attest the truth of this assertion.

The first treatise on practical philosophy, consisting of an inquiry into the modifying influence of the sum of external physical agents, called climate, on the bodily structure, disposition and intellectual aptitude of mankind, was a work of the father of medicine. The comparison of the Greeks, inhabiting a broken, hilly country, exposed to atmospherical vicissitudes, and their being consequently compelled to exertion and thoughtful provision, with the people of middle Asia, living under a mild and genial sky, and in a rich and fertile soil, who were quiescent, easily satisfied, and regardless of the future, is ably drawn by Hippocrates, to whom the honour is due of having so long preceded Montesquieu in the same path of inquiry, as he has surpassed him in the greater accuracy and force of his colouring. With what graphic power does this great man delineate the inhabitants of Phasos, as if they were actually in our presence ; we see them with their large limbs, heavy and massive frames, slow in motion and thought, suffering under the sinister influence of their humid and cloudy sky—a counterpart of the more northern

Hollanders of later days. Climate was not represented by the sage of Cos as zones measured by lines of latitude, and the length of the sun's stay above the horizon. With his customary penetration, he exhibited the difference of localities in their exposure to certain winds, and in the elevation of the soil and properties of the water, laying thereby a foundation for medical geography, on which few have worthily built except they who have taken man for their theme, and the health of man for their favourite pursuit. His work remains to this day a fit reference for the statesman and legislator, who never can discharge with ability their high trusts, if ignorant of the problem which he so instructively solves.

The most prominent follower of the example of Hippocrates was the chief of the Lyccum, the preceptor of Alexander, and the founder of natural history. Aristotle, himself the son of a physician, pursued with enthusiasm the study of man, both as a subject of medicine and as the first in the zoological scale. Of his fame as an acute dialectician and profound critic, I shall not speak in this place. Ample justice has been done to him in both these capacities. My purpose is to present him to you as a naturalist and an observer of nature, who stands on a lofty eminence, far above all others of his time, and attained to by few since. This grandeur of result, attributable by almost general consent to his medical studies, and the example of the Coan sage, remained for centuries the only monument of exact knowledge, which could with any success be opposed to the wild imaginings of the Athenian and Alexandrian schools of philosophy. It was the first instructive text for commentators when science dawned on modern Europe, and was even a salutary corrective to the misapplication of the principles of logic of the Stagyrite himself. It required a philosopher deeply imbued with medical science, and conversant with the nature of man, to be able, like Aristotle, to enounce the important truth that ingress

to the mind is invariably the result of anterior impressions on the senses. As a natural sequence to this proposition comes his grand law of induction, by which Hippocrates was guided in his observations, viz. that we must rise from particulars to generals, in order to arrive at positive knowledge and safe conclusions—the very reverse this, of the dogma of Plato.

After a lapse of two thousand years, another genius was destined to extend the system of Aristotle, having, like him, obtained by a study of medicine those definite and practical views of human nature, without which metaphysics is a bewildering maze of false philosophy. Locke carried out, in effect, the proposition of the Greek philosopher, and proved that the mind, working on the materials furnished to it by the senses alone, cannot have innate ideas. In the signal improvements in mental philosophy since his time, we trace clearly the predominant and enlightening agency of medicine. The work of Reid on Common Sense, the Lectures of Dr. Thomas Brown on Moral Philosophy, and the doctrines of the Phrenological school, while they confirm this view, seem to indicate the no very remote fulfilment of the prediction of the celebrated Descartes, that, if we are to have a correct philosophy of the human mind, the discovery must come from physicians. To medicine then we are already indebted for the first clear exposition of the innate capabilities and talents of the mind, of the manner in which this last is impressed through the medium of the senses, and of the modifying influence of climate and physical agents generally, on the mode of display of the innate faculties. Deprive metaphysical science, as it is called, of these positions, and what of true and available knowledge would remain.

In *Ethics*, many and idle disquisitions have been held on man's volition, and his responsibility as a free agent : and it is only since medical jurisprudence, based on medical observation and inquiry, has been freed from factitious specialties

and scholastic dogmas, that we are allowed to hope for a dispersion of the obscurities in which these questions have been so long involved. Philosophy, intellectual and ethical, is in fact but a part of the physiology of man, and it is high time that our science should once again resume its long abandoned privileges, and be placed in possession of that domain from which it was at first ejected by the captivating, but too often illusory eloquence of the Platonic school, and kept excluded in after times, by their metaphysical successors.

Natural History, comprising the anatomy and physiology, and the distinctive characters, of animals and plants, has ever found in medicine a fostering science; and medical men have in all ages been recognized as its most enthusiastic, learned and successful cultivators. Without their aid, it would have wanted much of its present entireness: it is in a great measure their work. The example of Aristotle, in his laborious contributions to our knowledge of the animal kingdom, has been zealously and ably followed by Daubenton, Vallisneri, Gessner, Blumenbach, Bonnet, Camper, Vicq d'Azyr, Jurine, Dumeril, Broussonet, Lamarck, Home, and a host of others, who either practised medicine or in whom the study of it was the inciting cause of their fondness for zoological inquiries.

Botany, or that branch of natural history which includes a study of the structure of plants, and of their external characters, is under the greatest obligations to medicine. Malpighi, the celebrated Italian anatomist, was the first to investigate methodically the formation of vegetables; and at this present time, no person carries such accuracy and minuteness, and is led to such important deductions in this department, as Dutrochet. Botany began to assume form and order as a science in the hands of Tournefort, was reduced to a beautiful and harmonious system by Linnæus, and methodized, in an exhibition of the natural characters and physiognomical relations of plants, by Jussieu; while to the travels of Gmelin

in Siberia, and of Hasselquist in Syria and Palestine, and the collections of Willdenow, we are indebted for some of the most valuable accessions to the history of the vegetable kingdom. All these great and honoured names are enrolled in the records of medicine, by their having been candidates for and received the highest honours, in the diplomas of ancient universities. Transcendant as are the merits of Linnæus, in botany, of scarcely less note are the salutary reforms and additions in those beautiful classifications of the animal and mineral kingdoms, contained in his great work, *The System of Nature*. Whilst rendering full justice to his other researches and discoveries, we are more especially bound to remember him as professor of medicine at Upsal, and author of many valuable essays on Diet, *Materia Medica*, and different diseases, and of an improved system of Nosology. He was greatly attached to the dietetic and hygeinic parts of medicine, and used to declare, with a warmth and freedom unusual with him on other subjects, that these were his delight, and that he believed he had made larger collections in them than any other person. To other members of our profession, such as Fagon, the physician to the French King, who fixed Tournefort at Paris, in the post of botanical demonstrator at the Garden of Plants, botany is largely indebted for the patronage which, by their instrumentality, governments have been induced to extend to it.

Natural Philosophy, and the exact sciences on which it rests, have constantly experienced kindly countenance and regard wherever medicine has borne sway. Constructed as the human body is on the most exact mechanical principles, which are so frequently illustrated in muscular motion and during the various states of progression, the physician naturally feels an interest in *mechanics*, of which his own practice and experience exhibit so many examples. The effects of light, heat, and air, on the animal economy, whether con-

considered as natural stimuli operating on delicate organs specifically fitted to receive their impression, or studied in their excess and abnormal variation, as productive of disease, make, necessarily, such appeals to the attention of the medical professor, that he is eager to follow up all the changes in the direction and momentum of these agents, and to lend an attentive ear to the explanations given in *optics*, *acoustics* and *pneumatics*. Though not always an active experimentalist in these branches, he is a zealous and intelligent adviser of whoever is thus devoted; and he contrives that ingenuity shall be ever on the alert, and discovery progressive. The first work on geometry published in English, was by a practitioner of physic; and the first correct views of astronomy, in fact the only true ones entertained in modern times, were those of a physician of Thorn,—the famed Copernicus. John Bernoulli, the inventor of the analytical and differential calculus, and so celebrated in the higher mathematics, was one of our number. His valuable essays on muscular motion, and on the alternate processes of removal and renewal of the component parts of the human body, are claims to our notice which have not been overlooked. Of more familiar sound are the names of Borelli, Boerhaave, Pitcairn, and John Gregory, whose extensive mathematical knowledge only served to give still greater compass and variety to their medical learning. John Gessner, the associate of Haller in his valuable work on the plants of Switzerland, was professor of mathematics, with honour to himself and advantage to all his pupils, for the long period of forty-five years.

Chemistry, however we may be disposed to regard it as an independent science, has, invariably, received systematized protection and encouragement from medicine. Of this truth we are soon assured, by a comparison of the manner in which it is usually taught, as a branch of collegiate education and in popular lectures, with the full and practical views of it pre-

sented in a course of regular medical instruction. So far as chemistry exerts a potent influence on the improvements and refinements of modern times, in the arts of use and ornament, we need not hesitate to say, that medicine contributes in no small degree to this result, by the honours and emoluments which fall to the share of chemists, as associates of physicians, in a comprehensive scheme of medical teaching. The labours of Stahl, Black, Fourcroy, Berthollet, Marcet, Wollaston, and Thomson, are, of themselves, convincing testimonials of the contributions of medical men to the science in question. Stahl was the first to present an imposing, connected, and extensive system of chemistry, and to furnish, in his combustible principle, or phlogiston, a key for the explanation of all the then recognized phenomena. To Black, the successor of Cullen, in the chemical chair at Edinburgh, is conceded the honour of having, by his detection of carbonic acid or fixed air, and his views of latent heat, opened the way to the brilliant discoveries and memorable reform, in which Fourcroy participated—the same Fourcroy who, on the merit of two of his earlier works, an abridgment of the History of Insects, and a Description of the *Bursæ Mucosæ* of the Joints, had been made a Member of the Academy of Sciences, in the character of anatomist. Berthollet, who contributed towards the alteration of the chemical nomenclature, in 1787, is advantageously known to the lovers of the useful arts, by his valuable observations and experiments on bleaching and dying, and to the general chemist, for his investigation of the laws of chemical affinity; while his professional brethren point him out as the author of a syllabus of a course of *Materia Medica*, and, in common with his two colleagues, Hallé and Percy, of *Facts on Vaccination*.

To enumerate, in proof of the benefits conferred on the sciences by medicine, those physicians who have been active and distinguished members of the most celebrated scientific

and literary associations, would far exceed the limits within which I must restrict myself on this occasion. The subject is of copious and engaging interest enough to form a volume of instructive biographies, in which the solid learning, varied attainments and profound philosophical views, of Celsus, Galen, Boerhaave, Mead, Hoffmann, Cullen, Zimmerman, Murray, Louis, Darwin, Cabanis, Hallé, Good, and Sprengel, could not fail to animate and excite to emulous efforts every intelligent reader. Among the few associated literati, whose meetings preceded the formation of the Royal Society of London, we find the name of Glisson, the not more skilful anatomist than learned and scientific man. The subsequent history of this Society exhibits a bright array of members of our profession, among whom we see Jurin, designated by Newton himself to be his successor in the secretaryship : Sloane, who followed the great philosopher, as president, and to whose library, and collections in natural history, purchased after his death, the public of the United Kingdoms are at this day indebted for the British Museum : Pringle, honoured with the same high office, after having contributed by his professional skill and foresight to protect the British army from the ravages of disease, during the campaigns in Flanders. Here, at home, our own Wistar, whose anatomical prelections and demonstrations, so often held in wrapt attention a crowded amphitheatre, was chosen to the presidency of the American Philosophical Society, as successor to Jefferson.

Even from this faint and imperfect exhibition, we obtain conclusive evidence to prove that the circle of the sciences is habitually travelled over by medicine. Some other professions are more favourable to mental gladiatorship—none are so congenial as it with a wholesome exercise of all the faculties of our nature—none have such numerous, interesting and diversified relations with mankind.

Medicine, while it calls into activity the purest emotions

of the human mind, and directs its followers to a careful and quiet study of the phenomena of creation, provides, at the same time, most ample materials for the imagination so to combine and colour, as to produce those bright pictures of poetry, on which man in all ages delights to dwell. Though our science exacts a rigid observance of realities, it acknowledges, with the beautiful fiction of Grecian mythology, the same tutelary divinity as the Muses. It well knows how, on suitable occasions, to cast a halo around the often dull existences of the world; giving ornament to utility, and adding the charm of heartfelt sentiment to the elevation of sublime conceptions. The same scrutinizing spirit, the same lofty standard of excellence, the same delight in the tranquil beauties of nature, characterize, equally, the physician with the poet: and, hence, the readiness with which both poetry and medicine have been cultivated by the same person, without disparagement to either. The great Haller, endowed with the most acute sensibility, and admiring nature with all a poet's enthusiasm, was on this very account induced to seek for a more intimate knowledge of her mysterious operations as unfolded in the natural sciences. He who contributed to the reform of German literature, and who was early distinguished for the depth and compass of thought and richness of imagery in his sonnets and odes, was gradually drawn on to a profound and intimate acquaintance with botany and anatomy. The poet at twenty, was the first physiologist of the age at forty, at which time he may be said to have created a new era in medicine. Bellini and Redi are not less known to the lovers of the Tuscan muse as good poets, than distinguished among the followers of our profession for their medical attainments and skill. English poetry and polite literature abound in the contributions of physicians; many of them of such surpassing merit, as to furnish both the best incentives to youthful ingenuousness, and the most appropriate rules for the ripened judgment of age.

Akenside stands conspicuous as the most philosophical of poets; the stately measure of whose verse is in strict unison with the dignity of his subject—a description of the high capacious powers of man, blended with the noblest invocations to genius and liberty. “The Pleasures of Imagination,” is the never failing reference to all who would enter into the true spirit of our nature, and see exhibited in fair colours the lofty aspirations, the innate powers of mind and perceptions of the beautiful and true, which are the redeeming traits of humanity, with all its feebleness of purpose and wavering resolve. The canons of taste, interwoven with the principles of philosophy, are there laid down in language so clear and perspicuous, that the eloquent Dr. Thomas Brown, in his Lectures on Moral Philosophy, could select no expressions more apposite to his purpose than those of the poet. The publication of this work was contemporaneous with Akenside’s graduation at Leyden; and the same year found him receiving the highest honours in his professional studies, and taking a stand among the most favoured of the Nine. We cannot hesitate to attribute much of the variety, richness, and effect of his pictures of the natural gifts,—genius, taste, and innate propensities of man,—to the knowledge acquired by the poet, during his medical noviciate, of the reciprocal influence of mind and body, and the play of rapidly alternating emotions. Nor did the Muse in ungrateful return rob science of its dues. His elegant and classical Latin treatise on a painful disease, and his appointments to the charge of a large hospital, and to being one of the physicians of the Queen, are evidences of the professional ability and advancement of Akenside; and prove that, in his case, medicine has been married to immortal verse.

His contemporary, Armstrong, has left us, in a didactic poem, “The Art of Preserving Health,” the wholesome laws by which we learn, in healthful body, how a healthful

mind the longest to retain. Under the separate arguments of "Air," "Diet," "Exercise," and "The Passions," the poet describes, with great felicity, the charms of nature, and temperate and philosophical enjoyment, which are thrown in vivid contrast with the sated appetite of luxury, and the blighting influence of unbridled indulgence. The pure and primitive doctrines of the Epicureans, could not have been taught with more persuasive moral effect, nor in more harmonious strains, than in this production of the medical poet.

Of Goldsmith, "a man of such variety of powers and such felicity of performance, that he always seemed to do best that which he was doing," more need not be said, than to remind you that the author of "The Deserted Village," and "The Vicar of Wakefield," received a regular medical education at Edinburgh. Though never engaged in the active duties of our profession, we discover in his beautiful portraits of men and things, a greater freedom of outline and more characteristic touches, in virtue of the knowledge of his species, opened to him through the medium of medical study.

Smollet has larger claims on our attention as a practical physician, who encountered the repulsive drudgery of a surgeon's mate on board of a ship of war. Sympathy for his sufferings is diminished by our knowledge of the fact, that to his having held this post we are indebted for those masterly accounts of maritime life, and pictures of naval personages, which, until the appearance of "The Pilot," and "The Red Rover," were deemed to be so finished and accurate, that succeeding writers were supposed to be under the imperative necessity of imitating Smollet, if they aimed at fidelity of description in the same walk. As historian and novelist, he must be familiar to all of you: his few poetical pieces attest the elevation and ardour of his feelings on the side of liberty and enlightened freedom of action. He was at all times distinguished for an uncompromising spirit of independence and

fearless criticism. His friend and biographer, Dr. Moore, father of the British general who fell at Corunna, is well known and esteemed in the varied walks of literature, and in practical medicine, as a successful writer and good physician.

Few will deny to Darwin extensive powers of thought, variety of attainments, and unbounded ardour in the cause of medicine and general science. However moderate his merit as a poet, he has been unquestionably instrumental, by his "Botanic Garden," and "Loves of the Plants," in diffusing a fondness for botany and vegetable physiology, as in his "Zoonomia" he has accumulated abundant matters for reflection to the physician and philosopher.

The name of Good is associated in your minds with the ideas of profound medical inquiry, great critical acumen, and powers of comparison and analysis of a high order, evinced in his capital work, modestly called the "Study of Medicine." He is not perhaps so well known to many of you as the accurate and elegant translator of Lucretius, as deeply imbued with the spirit of philosophy, as smitten with the love of poesy and sacred song; for to his other claims on the esteem of the literary world, he has added translations of the Book of Job and of Psalms from the Hebrew.

In taking a retrospective view, we see the name of Blackmore, who, though he failed in the high or epic department of poetry, has, in his "Creation," succeeded in "uniting ornament with strength, and ease with closeness;" and, what is not less momentous, he has bequeathed to posterity a reputation for sincere love of wisdom and religion, with high professional eminence and successful practice. Most of us at all familiar with the life and writings of the great lexicographer and moralist, Johnson, have heard of his full, sonorous style, being attributed to an imitation of Sir Thomas Browne, author of the "Religio Medici," and "Enquiries into Vulgar and Common Errors," and a physician of some eminence

during the reign of Charles I. Browne was not without a share of poetical merit ; and he is confessed to have augmented the philosophical diction of the English language, and to have introduced sometimes pleasing innovations and happy temerities.

At this present time, and among Americans, the hallowed bays are worn by Percival and M'Henry, whose titles proclaim them to be of our number ; while their poetry, by general award, places them high on Parnassus.

In that department of literature which has the great moral aim of correcting vice, unmasking hypocrisy, and checking the absurdities of pedantry by *satire*, our profession has exercised, in the persons of some of its members, no unimportant agency. Among these, the name of Rabelais is of most ready occurrence ; for, however he may have at times forgotten the canons of pure taste, by occasional grossness of ideas and indelicacy of language, we cannot withhold from him the merit of keen irony and fearless wit. This extraordinary man, the robing in whose gown is spoken of as equivalent to conferring the doctorate at Montpellier, who was at once the idol and the buffoon of his age, has left us in his *Gargantua*, an intellectual repast of a very mixed nature. With food for the lowest appetite, we find matter of such an exquisite seasoning, that it is calculated to please the most refined taste. His copious commentaries on Hippocrates and Galen, are evidences that he was not inattentive to the literature of the profession, as his post of physician to Cardinal du Bellay shows his practical knowledge of it. His countryman, Guy Patin, Professor in the Medical School of Paris, was declared, by a no friendly contemporary, to have the expression of face of Cicero, and the character of Rabelais. Endowed with a most retentive memory, Patin spoke much and well ; his graceful elocution and pure latinity, imparted such a charm to his lectures, that his amphitheatre was resorted to by literati of

all classes, who listened in emulous attention with his medical students. He is represented as eminently satirical; even the details of his dress,—hat, collar, doublet, mantle,—all was a slight on the fashion and vanities of the time. But his chief claims to literary distinction and historical celebrity, rest on his letters, an amusing miscellany of anecdotes, with which the world is always pleased, and of satire, which it loves still more.

With as busy a spirit and a disposition as careless of the world's censure as the two French wits, whom, perhaps, he surpassed in scientific attainments, was Dr. Henry Stubbe. Like them, he owned no master and feared no rival. The members of the Royal Society had long to bear the keen assaults of his wit, and yet at the same time to acknowledge, that while ridiculing he could also instruct them. Stubbe may well be taken as the representative of a class of men who, always occupied more by present views than interested by the past events of their life, care little for their consistency in the high spirit of their independence. Arbuthnot, the friend and associate of Swift and Pope, added to the reputation of a successful practitioner, that of an elegant scholar and classical wit, with a character for great amiableness and piety. Of the versatility of his talents we have strong proof: no one would recognize in the 'Treatise on Air,' a work by the author of 'John Bull' and 'Martinus Scriblerus.' Garth, in his heroico-comic poem of 'The Dispensary,' has made wit and verse subservient to the purposes of pure benevolence and disinterested charity. He was a member of the famous Kit Kat Club; and be it recorded to his praise, that, in all the heat of party politics, and renown of professional success, he never forgot his obligations to a friend or a benefactor. In him existed what his biographer, Johnson, says every man has found in physicians, "great liberality and dignity of sentiment, very prompt effusion of beneficence, and willingness to exert a lucrative art where there is no hope of lucre."

Medicine, the friend and ally of poetry, is sensibly alive to the kindred beauties of the *Fine Arts* and *Music*,—of which physicians have always ranked among the most zealous and discriminating if not munificent supporters. None can appreciate better than they the merits of expression, the soul of painting and sculpture. Their anatomical knowledge and frequent observations of bodily feeling and mental emotion, provide them with materials in these respects, which their classical readings enable them to digest and embody in well defined canons of taste. On many occasions, even within the sphere of strict professional duty, they are called upon to delineate parts of the body, and particular apparatuses, as well as in their botanical studies to copy different productions of the vegetable kingdom. Camper, so celebrated for his knowledge of comparative anatomy, was, at the same time, a very ready draftsman. The brothers Bell, John and Charles, have been advantageously known, during our own day, for their excellence in the art of drawing. Artists are especially indebted for the valuable donation made to them by the latter, in his *Anatomy of Expression*; and also to Mascagni, for his larger and more extensive work on the same subject. The antiquary acknowledges his obligations to Charles, son of the satirical Guy Patin, for a valuable history of medals, and numerous treatises on numismatics—a fondness for which, did not prevent his shining as a popular and eloquent professor of anatomy at Paris, and of surgery at Padua, after his expatriation. France is justly proud of her Perrault, the first architect of that age so prolific in great men: and we must not be unmindful of his additional claim to our regard, in the circumstance of his having commenced his career as a physician, and displayed throughout life the attainments of a learned man, and the feelings of a good one. Of the first we have ample evidence, in his valuable papers on natural history and mechanics, and his translation of Vitruvius; and of the latter he gave strong assurance, in his restricting the exercise

of his profession to the relief of the poor, and the gratification of his friends. In what may be called the mixed study of the arts of design, and figurative and symbolical language, Young has acquired lasting fame by having led the way to a discovery of the so long hidden mysteries of the Egyptian hieroglyphical inscriptions.

If next we transfer our attention from science, literature, and the arts, to the other, and in a certain sense, more practical means of strengthening the social compact, by the enactment of good laws, devising the best plans for general education, and suggesting improvements in agriculture, we shall find medicine prompting with zeal, and guiding with intelligence, in all these measures of public utility. Physicians, alike removed from servile adherence to precedent by their habits of free inquiry, and from faction by their domestic life, and an intimate acquaintance with the baneful effects of civil strife on the health, morals, and peace of the community, are willing supporters of existing institutions, in so far as compatible with the well being of the majority; but they are also not less zealous advocates of temperate reform and progressive improvement. Unfitted by their rational love of liberty from playing the part of courtiers, and unwilling from taste and principle to be distinguished as demagogues, physicians, whose business makes constant calls on their attention, can seldom be found to have climbed the ladder of preferment, or sought for fame in popular commotion. And yet their claims on the gratitude of society for political services, though unostentatiously set forth, are of undoubted validity. Without the graces of oratory or the arts of practised debaters, they are still enabled, owing to their extended and liberal views of human nature, to instruct by their knowledge, and please by their liberality of sentiment; and hence are always prepared to act a respectable part in legislative and corporate bodies. At home, their information is freely and liberally imparted; and though

they do not pretend to expound the written laws of their country, and hold *in terrorem* the penalties for breaches in their observance; nor avail of the higher and more imperative sanction of the religious creed, they are always prompt to appeal to the natural law written in the heart of man, which points out equal rights to all. For them, also, is reserved the task of explaining and enforcing the connexion between liberty and hygeia.

Medicine justly exacts from its followers, in return for the benefits which they have themselves received, uninterrupted attention to *education*, as the only sure foundation of liberal institutions and good laws: and, accordingly, physicians are at all times the willing coadjutors of the intelligent, wherever found, in every measure having mental improvement for its object. Depositaries and centres in their respective circles of much scientific and miscellaneous knowledge, they are not unfrequently chosen guardians and directors of the important trusts connected with school and collegiate instruction.

Agriculture and Medicine have been constantly regarded as subjects of kindred interest, from the time of the Roman writers down to the present day. Of these, the names of Cato, Celsus, Varro, and Pliny, are well known; nor is it less generally admitted that Virgil was versed in both. Physicians are naturally inclined by their observations of the effects of the seasons, and their fondness for natural history, to study rural economy; and hence it continually receives from them instructive accessions, and zealous support. The services rendered to agriculture by John Gessner in Switzerland, and by Mascagni in Tuscany, are neither solitary nor unequalled by similar benefits received from members of our profession, in every quarter of the civilized world.

In municipal and local regulations and laws, the voice of the physician is heard explaining the best means of preserving the health and consequent comfort of the community. From Empedocles, who taught his fellow citizens of Agrigentum

how to turn away the withering Sirocco, to Lancisi, who pointed out the pernicious nature of marsh air; and in so many others, whose labours and learning have contributed to the Quarantine laws, and Sanitary codes, which often modify foreign commerce and international communications, we recognize the never failing benignant influence of our profession. Thus without being distinguished among the politicians of the day, or claiming notice by adroitness of management, the physician is content to perform the part of a practical political economist, by making his knowledge subservient to the diffusion of intelligence, and the increase of substantial comforts, and of orderly demeanour throughout the community. Haller, compelled by ill health to abandon for a time his professorship in the university of Gottingen, the theatre of his fame, and to return to his native city of Berne, was received with every demonstration of joy, and soon employed in various useful and interesting commissions. A successful mediator between the republics of Berne and Geneva, and between the former and the Valais, he was not less attentive to improving the health, by causing marshes to be dried up, than adding to the revenues of the state, by suggesting improvements in the working of its salt mines. He was chiefly instrumental in the foundation of a hospital for orphans, and the establishment of a school for the patrician Bernese youth. The republic, grateful for the services of Haller, and eager to prevent his acceding to the frequent solicitations of the king of England, for his return to Gottingen, passed a decree by which he was put in requisition for the service of the state; and an office additional to that which he already held in the Secret Council, was created expressly for him, to cease after his death.

Camper, of whom Holland is so justly proud, spent the intervals of leisure from his professional duties, as lecturer on anatomy, surgery, and botany, in stimulating his fellow-citi-

zens of Groningen to form a society for the promotion of agriculture and rural economy, of which he was made secretary ; and in devising the most efficient plans for arresting epizootic diseases in the Low Countries. At a later period of his life, he was elected to the provincial legislature of Friesland, and afterwards a member of the States General at the Hague, where he terminated his useful career.

Cabanis, the friend and physician of Mirabeau, panting in early life after literary fame, which he at first sought as a poet, soon felt a desire to engage in the study of medicine ; the number and diversity of the subjects composing which, and of the collateral sciences adorning it, presented most aliment to his strong appetite for knowledge. Following in the path of Hippocrates, he traced the influence of physical and external agencies and organization in modifying the moral and intellectual nature of man. An ardent lover of liberty, he was the enthusiastic admirer and defender of Mirabeau, whom he believed to be its true apostle : but tempering his zeal with sound judgment, he saw the paramount value of public instruction as the best security to a bill of rights. On this subject he prepared an elaborate treatise, found among the papers of Mirabeau ; and subsequently contributed in a more conspicuous manner by his personal exertions, to the reorganization of the medical schools of France. As legislator, he formed one of the Council of Five Hundred, and was subsequently a member of the Conservative Senate.

Barthez of Montpellier, a man of great erudition, and with a most capacious and vigorous intellect, whose works have contributed to very salutary reforms in medicine, was made counsellor of state under the old regime. As one of the noblesse, he voted in the Assembly of the States General against an union of the three orders of nobles, clergy, and deputies.

In English parliamentary history, the name of Freind cannot be forgotten for his bold stand, as a member of the House

of Commons, on the side of constitutional law and liberty, against what were conceived to be the undue encroachments of the crown. His imprisonment in the tower of London, while it furnished conclusive proof of the sincerity of his opposition, was the means of his professional rival, Mead, exhibiting a generous and dignified carriage, in insisting, as the price of his own attendance on the minister, that Freind should be liberated.

The time we may hope is now approaching, when the value of medicine and its collateral sciences will be so far appreciated by statesmen and governments, as to require that physicians shall be awarded, not merely the subordinate station of agents, but the higher office of counsellors in military and naval expeditions; in which both humanity and policy dictate the propriety of making the strongest impression on an enemy, with the least possible waste of lives to the assailants. This desirable result can in no other way be attained than by an intimate knowledge of the agents of hygiene, and a familiar acquaintance with medical topography. Here it becomes a question, well deserving the serious attention of our government, whether a certain number of our profession in the United States' service ought not to be detailed, in rotation, to accompany the various detachments of topographical engineers who are making such valuable surveys of our country, with a view to internal improvement and national defence. It is a lamentable and acknowledged fact, that the loss of lives in actual battle, is but a share of the entire mortality during war. The unhealthiness of an encampment, fatigue and exposure of the men during a march, want of proper sustenance, and defective hospital arrangements, have often of themselves paralyzed the efforts of an army, which took the field flushed with the hopes of victory and fame, but which in a few short months was known no more. It passed away like a dream, leaving hardly any of its numbers to tell how ingloriously

it sunk under the pestilence of marsh air and tropical heat; without the consoling poetical delusion by which the warriors besieging Troy were fabled to have fallen under the arrows of Apollo. Had England's ministers been better informed and advised in medical topography, they would hardly have made that fatal demonstration on Holland, by which the island of Walcheren was converted into a grave for their soldiers and a lasting monument of the then imbecility of their councils.

The lives of its citizens must be deservedly dear to this republic, and when the voice of war blows in their ears, it should not exact a greater sacrifice than of blood in the defence of its soil. Lingered disease and all its dire accompaniments of palsied hope, ambition's fair career checked in its opening efforts, friends in fearful doubt, ought to be warded off by the most prudent and scientific measures, which medicine, enlisting hygeia in her service, so clearly points out. Had a shield of this nature been interposed during the last war with Great Britain, how many thousands of lives, and how much anxiety and distress might have been saved. The life of the celebrated Ambrose Paré will aid us in forming an idea of the additional confidence with which the actors in war can be inspired, when conscious of their being properly placed under the protection of our art. Death will be met without fear, and on occasions courted by the gallant soldier, who would shrink with dismay at the thoughts of his being left bleeding, helpless, and agonizing on the field of battle, or subsequently abandoned to the slow consuming hectic of ill-cured wounds. When Metz was besieged by the Imperialists under Charles V. the garrison, which included some of the chief noblesse of the kingdom, sent a deputation to Paris, beseeching the king to let them have Paré. So soon as the arrival of this distinguished surgeon was generally known by his showing himself on the breach, he was hailed by both officers and men with shouts of triumph: and to the confi-

dence inspired by his presence, has been attributed the preservation of the city. The names of Percy and Larrey were scarcely less dear to the French armies during the wars of the revolution. The work of Larrey, on military surgery and the campaigns in which he held such high professional rank and rendered such important services, is replete with instruction; and to none more than the general who would wish to save the lives of his soldiers, and at the same time most efficiently serve the cause of his country. Of the noble devotedness of Desgenettes, during the memorable campaign of the French army in Egypt, in freely inoculating himself with the matter from a person suffering under the plague, most of us are apprized. This act was equivalent to a victory gained over the enemy: it removed the gloomy forebodings of the soldiers, and restored their national vivacity and confidence.

Such, in a brief and hasty sketch, are some of the great and beneficial tendencies of the science of medicine on the morals and intellect of society, by its sustaining science, encouraging literature, aiding humanity, giving efficiency to philanthropy, and averting, to a certain extent, the horrors of war and pestilence. To these manifold benefits afforded by the science itself, in its regular career, others ought to be added, of incidental but brilliant occurrence, to which it stands in the relation of a kind and generous foster mother. Among these appear most conspicuously an exalted love of liberty and devotion to country, at the risk of fortune and life, and still more, of fame itself; for who shall be found writing the eulogy of the unfortunate patriot, amid the crowd of servile historians who brand him with the odious epithet of rebel. If the correct and undisputed standard of meritorious exertions be found in disinterested motives and sacrifices made, then must we award the full meed of praise to medical men, when they abandon the peaceful engagements of a lucrative profession for

the agitating scenes of legislative discussion, or the turmoil of a camp. The lawyer, after temporary absence, resumes his clientage, and the clergyman after a partial separation from his flock is restored to his pulpit, with the good will of all the parties concerned. Few bonds of feeling are severed. But confidence, ever of slow growth, and in our case the result of so many mingled motives, cannot be hastily given to a physician by the various members of a family; nor, if once transferred to a successor, can it be so readily restored to him. The relations between the parties are not of that simple business character to be adjusted in general account current; nor, as between lawyer and client, to be terminated with the particular case which brought them together: they are as much the complex operations of feeling as the dictates of judgment, and cannot, ought not, at mere will, to be readily interrupted, nor when interrupted to be promptly renewed. Hence, the absence of a physician from his daily routine of business, is followed by a loss of income and influence, which he can never in those particular cases regain by his after presence and attention. When, therefore, regardless of all these considerations, he willingly meets the blasts of revolutionary storm, and quails not before the thunders of tyranny, all must admire the nature of that genial impulse which prompts to such frank and generous proceedings.

Happily for us, happily for our country and mankind, on whom true glory, like the bright planet of day, ever sheds a diffusive and benign influence, the annals of our revolution,—that memorable and eventful period in the history of the world, are stored with examples of the patriotic ardour of the followers of medicine. With honest pride and exultation as physicians, we tell of the noble devotion to country of Hippocrates, who preferred lavishing all the resources of his art in checking the devastating plague, to the gifts of Persia's king, and the persuasive and alluring offers of his satraps, held out as the price of services

to the enemies of Greece. With a still holier glow of emotion as freemen, equal in the eyes of our constitution and laws, we of the school of Hippocrates point to the name of his disciple Warren, who nobly and fearlessly resisted the worst of all pestilence, that of tyranny. The avenues of wealth were opened to him; professional reputation was within his grasp; and the meed of patriotism itself could not have been withheld from one who should have devoted himself to curing the diseases and healing the wounds of his fellow citizens in the approaching struggle. Not only were these unheeded, but the honour and natural pride of command in his new career of arms were forgotten, in the one grand and ruling principle of action, the defence of liberty and law. He poured out his blood as a sacrifice, the incense of which, rising from that hill where he fell, was received as the first pledge of the righteous cause, which, of paramount sway here, is rapidly extending itself among the nations of the earth.

Survivors of the contest and actors in some of its most conspicuous scenes, were a Brookes, a Wilkinson, and a Dearborn; nor must we omit the after services and official stations of Eustis; all of whom found in medicine an early exercise for their intellect, and an encouragement to generous deeds. Our profession furnished its share to that ever memorable body, the members of which pledged their lives, their fortunes, and their sacred honour, in the Declaration of Independence: and the names of Rush, Thornton, Hall, Wolcott, and Bartlett, appear in that revered document as at once evidences of the purest patriotism, and a just cause of boast for medical science. But the boon of political independence was not necessarily to be followed by freedom for us from antiquated medical creeds, and the legends of the schools. The same daring spirit, which could exert its energies to check the lawlessness of tyrannic sway, was required to free us from the no less oppressive yoke of opinions, venerable only by their age, and strong in our

voluntary weakness. Rush was that spirit, before whom all the cumbrous machinery and gorgeous array of Galenic lore vanished like the baseless fabric of a dream. He has left to others ample and unconfined space for erecting a noble structure; and bequeathed a rich legacy of materials towards the accomplishment of this great design. Let not any of his successors slumber at their post in the wrappings of philosophic indifference, or selfish tranquillity; let not any of us, taking shelter under the veil of imagined obscurity, shrink from contributing our mite to the great cause of medicine, the cause of literature and philanthropy. It would be unjust on this occasion to overlook the name of Williamson, whose scientific labours and political services at home, and ready presence of mind, and vigilant courage in the cause of his country abroad, are matters of historical interest, and as such have been duly and authentically recorded. His bold experiment, by which he obtained, from the chief clerk in one of the Treasury departments at London, Governor Hutchinson's letters, gave fresh incitement to the opposition to the demands of the crown; and was not without its weight in accelerating a rupture which was destined to convert colonies into independent states.

The inhabitants of the southern portion of this continent, in their later and protracted struggle for escape from the misrule of a bigoted tyrant, are ready to avow their obligations for the prompt and efficient aid furnished in the disinterested fortitude and guiding intellect of their medical brethren. To one of these the suffrages of his fellow-citizens confided the chief magistracy of the state; and in the President of the free and independent republic of Buenos Ayres, was seen the enlightened and liberal disciple of Hippocrates.

In those fair regions of Europe, where nature lavishes her richest gifts, and all but man rejoices, the watchword of liberty has been oft repeated,—and in repetition acquired a stunning power by the raised voices of physicians,—eager to snatch

the sceptre from despotic hands. Spain, Italy, and Greece, with mournful pride can point to such, and claim from strangers the exulting admiration denied to them at home. Rastori, the founder of the new Italian medical doctrine, encountered all the horrors of a siege and the confinement in a dungeon, for his attempts to shake off the incubus of Austria's iron yoke. Borda lost his station as a professor because he dared to express the elevated feelings of a patriot. In Piedmont and in Naples, short as was the convulsive struggle for liberty, and sinister and complete the after sullen quietude, names were sent forth to the sympathizing world of patriots, whose musings over the wrongs of their country, must have often alternated with their professional reflections on the means of relieving the sufferings and curing the diseases of their fellow men. While thus briefly adverting to the unsuccessful struggles for liberty, we must not omit the names of Emmet and M'Nevin, associates in this noble cause, fellow victims to tyranny, and companions in exile to this their adopted country. Emmet, the accomplished lawyer and eloquent pleader, the announcement of whose death was but yesterday echoed in mournful accents by every son of Erin throughout the land, began his career as a physician; and happily showed in his own person, that, if law ripened the fruit, medicine germinated the seeds of those exalted feelings, which shall ever make his name honoured among men.

But I am admonished by the time which has elapsed since I began to discourse on this all-interesting subject, of the necessity of bringing it to a close. Before doing so, I would gladly, were I not liable thereby to the imputation of partial eulogy, point out among your own number, among my associates in this Society, able naturalists; profound philosophers, eloquently discoursing on the movements of revolving orbs; skilful chemists; elegant and erudite scholars; successful poets; tasteful musicians, and ready draughtsmen, all pressing

forward with emulous efforts to contribute to the great cause of philanthropy—the amelioration of our species, by subduing physical ills, and preparing the mind for moral culture and religious illumination. With all these resources, and such extensive powers of action, we need but look to the history of the past as a guide for the future. Let us be vigilant at our posts, true to our trusts—united together by pure ethics, as we necessarily are by community of purpose and pursuit; and the world will still continue to acknowledge the beneficial and diffusive INFLUENCE OF MEDICINE.