

*Peaslee (E.R.) Dr. Isaac Hoag
With regards of E.R.P.*

Comparative Intellectual Standing of the Medical Profession.

AN

INTRODUCTORY ADDRESS

BY

E. R. PEASLEE, A. M., M. D.

PROFESSOR OF ANATOMY AND SURGERY

IN THE

MEDICAL SCHOOL OF MAINE.

SESSION OF 1851.



CONCORD:
PRESS OF McFARLAND & JENKS.

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TO THE

CLASS

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BRUNSWICK, MARCH, 1851.

22081

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BOWDOIN COLLEGE, March 6th, 1851.

DR. PEASLEE :

Dear Sir—

At a meeting of the Medical Class, the undersigned were appointed a Committee to solicit a copy of your Introductory Address for publication.

We are happy in being the medium of this request; to which you will also allow us to add our individual desire to possess your Address in a permanent form.

With great esteem, we are, Sir,

Your humble servants,

D. DWIGHT HITCHCOCK,
DAVID S. CONANT,
ELBRIDGE G. DECKER,
LUTHER S. MILLIKEN,
ANDREW T. FITCH,
COMMITTEE.

BOWDOIN COLLEGE, March 8th, 1851.

Gentlemen—

In compliance with your communication of the 6th inst. I shall with pleasure place a copy of my Address at your disposal. And not doubting the class you represent will, in professional life, maintain the high intellectual and moral character of our profession,

I am, with regard and friendship for each member personally,

Yours truly, E. R. PEASLEE.

Messrs. HITCHCOCK, CONANT, DECKER, &c.
Committee.

A D D R E S S .

GENTLEMEN—

Many a scandal upon our profession has been silently submitted to, merely because few medical men possess that acquaintance with the history and the literature of their art which would enable them to refute it. An instance of this kind I propose at this time to consider, and to lay before you the facts which demonstrate its want of foundation.

I allude to the charge of ignorance, and a tendency to infidelity, which, for more than five hundred years, has been from time to time reiterated by non-medical men, as a standing libel upon the medical profession; and I propose to show that so far as *intellectual standing* is concerned, the medical has ever compared favorably with the other two learned professions.

That in respect to *moral character*, also, it does not suffer in such a comparison, I propose to prove on a future occasion.

I. In ancient times the practitioners of the healing art were held in the highest estimation. Homer recognizes their comparative value in the Iliad :

“ A wise physician, skilled our wounds to heal,
Is more than armies to the public weal.”

Lib. XI., ver. 514-15.

Zenophon, also, in his Cyropædia, speaks favorably of the healing art, and adds that hygiene, or the preservation of health, is an art worthy of Cyrus himself. Vegetius is said to express a similar idea. Hippocrates asserted that “ a philosophical physician is like a god;” and Rhazes, that “ medicine is wholly from God, and a thing most highly to be venerated.” But lest this be considered *ex parte* testimony, I may add that Pliny* ex-

* Diis primum inventores suos assignavit medicina, cœloque dicavit.

presses the same idea ; and Cicero also exalts the medical above all other professions, and likewise assigns to it a divine origin. “ By nothing,” says he, “ are men brought nearer the gods, than by giving health to their fellow men.”*

I will quote but a single authority more to show the estimation in which the practitioners of the healing art were held in ancient times.

“ 1. Honor a physician with the honor due unto him, for the uses which you may have of him ; for the Lord hath created him.

2. For of the Most High cometh healing, and he shall receive honor of the king.

3. The skill of the physician shall lift up his head, and in the sight of great men he shall be in admiration.

6. The Lord has given men skill, that he might be honored in his marvellous works.

12. Then give place to the physician, for the Lord created him : let him not go from thee, for thou hast need of him.”

Ecclesiasticus, chap. xxxviii., ver. 1 to 12.

To such a degree, indeed, was Cicero impressed with the dignity of the medical art, that he thought any one privileged to defend it, and proposed to do so himself in a public speech, if an opportunity presented.† It was, however, much improved soon after his time by Celsus, the cotemporary of Horace, Virgil and Ovid ; and much more still by Galen,‡ about one hundred and fifty years after Celsus. But for the long period of thirteen hundred years after Galen, no important advances were made ; his opinions still being received as almost oracular.§ Oribasius, who flourished about A. D. 350, and Aetius, about A. D. 550, merely preserved the art without improving it ; and after this time we find that medical science, like all other science, became obscured by the ignorance and barbarism of the dark ages. From A. D. 640 to 1206, it can hardly be said to have

* *Deorum immortalium inventioni consecrata est ars medica.—Homines ad Deos nullâ re propius accedunt, quam salutem hominibus dando.*

† *Licet omnibus, licet etiam mihi, dignitatem artis medicinæ tueri ; potestas modo veniendi in publicum sit, dicendi periculum non recuso.*

‡ Born A. D. 131.

§ The authority of Aristotle (also a physician,) in certain other departments of science, remained equally unquestioned for even a longer period.

existed at all, except among the Arabs, who indeed prevented its entire annihilation; and by some of whom, especially Rhazes, Avicenna, Albucasis, and Avenzoar, it was materially improved.

But while the general darkness was thus pervading Europe, the clergy had seized upon the practice of medicine, and had found it a source of great personal influence and pecuniary profit. They, however, so disgraced the art by their ignorance and impostures, that a Council, called to correct these abuses, by Pope Innocent II., in 1139, threatened those monks and canons who applied themselves to the practice of medicine, with the severest penalties. But they had previously, through their evil influence, destroyed the medical school of Salerno—the first ever established*—and would not relinquish their dishonest gains so long as it was possible to retain them. It was found necessary to issue a still more peremptory edict at Tours in 1163, and to repeat it in 1179 and 1216, though the monks still continued to practice whenever they could find employers.

It was in this state of things that the charge of ignorance and atheism was made upon medical men; and made by the priests themselves, in their rage at the prospect of losing their unrighteous perquisites. It originated in malice, and had no foundation in fact, so far as the medical profession was especially concerned.

It is indeed admitted that the ignorance which characterized all other professions during this period, also attached itself to the healing art;—a period when many of the clergy could neither write nor read. But for much of this ignorance the clergy were themselves responsible; for the art had sadly deteriorated while they had assumed to be the sole repositories of medical knowledge, and they had labored to prevent any improvement, by opposing the establishment of medical schools, and even discouraging human dissections in every way. It is now but little more than five hundred years since the first public anatomical demonstration upon a human subject was given, by Mondini di Luzzi, a Professor at Bologna.†

* About A. D. 1000.

† In 1315.—More than one hundred years after this, Montagnana, also of Bologna, was the only person living who had dissected so many as fourteen subjects.

It has often been remarked that the clergy are as a body even now strongly inclined to patronize quackery ; whether because this ancient grudge against the regular profession has descended to the present day, or because they were formerly a body of quacks themselves, I will not attempt to decide.

But medical men were not slow in improving upon what was so ungraciously surrendered to them, and availed themselves to the utmost, of every opportunity allowed them by the church for extending their science, by the prosecution of anatomical investigations, and the establishment of medical schools. It was not, however, till about the middle of the sixteenth century (1550,) that anatomy had been allowed to assume the form of a distinct department of science, from the labors of Vesalius, Eustachius, Fallopius, and others. And yet, so far as we can judge in the absence of positive proof, the intellectual standing of the medical profession, at that time even, was fully equal to that of any other. That it has ever been so subsequently to this period, will, I think, appear as I proceed.

There are, however, several circumstances peculiar to medical men, which tend to preclude that extensive intellectual culture which other professional men may secure ; and which have sometimes been supposed almost to necessitate a less degree of intellectual acquirements. Justice requires that I should specify them before preceeding farther.

1. In the first place, physicians cannot, like lawyers and clergymen, so command their time as to have a particular season for the prosecution of any favorite study. They are liable to interruption at any moment, and must, therefore, carry on their investigations, however profound their nature, under great embarrassments. If the physician resolves to set apart, for intellectual improvement, the hours of the night, while others sleep, even then he is not allowed to execute his plan, but must often relinquish both that and his own much needed repose, to attend to the wants of others. On the other hand, the clergyman may make his study a *sanctum*, into which no other's business nor person may intrude ; and the lawyer has certain hours for business, and may devote the rest of his time to such other pursuits as interest him.

But, in a still more important sense, does the physician find less time at his command for intellectual improvement. The constant exertion of body and mind in medical practice, actually renders the average of life several years less in the medical than in the other two professions. The statistics of the State of Massachusetts for 1846, give, as the average age of deceased clergymen, 64 years ; of lawyers, 59 years ; and of physicians, only 47 years. In England, the average longevity of clergymen is 59 years ; of lawyers, 50 ; and of physicians but 45 years. The statistics collected by Dr. Caspar, of Berlin, give corresponding results. How truthful is the motto adopted by Tulpius, a distinguished Dutch physician of two hundred years ago—"Aliis inservicendis consumor!" "And yet," says the writer* who collected these statistics in England, "the medical is notoriously the worst paid and the worst treated of the three professions. The public, for whose good this awful loss of life is sustained, is utterly regardless of the sacrifice."

2. Another discouragement to high intellectual culture on the part of medical men, is the fact that this has never in any country been, like the other two professions, directly protected by government, and, like them, been made the stepping-stone to preferment. In all countries, distinguished legal men are candidates for political promotion. The foundation of the highest political eminence has often been laid in a single happy speech or successful plea. So, in many countries, the dignitaries of the church are the favorites of government. But, on the other hand, it seems to be tacitly understood that whoever becomes a physician, as a matter of course forfeits all chance of governmental patronage or political distinction. And yet, this patronage is one of the most powerful stimulants to high intellectual acquirements in the other two professions. Sir Astley Cooper was the first medical man in England, if I mistake not, who received a baronetcy on account of his professional merits alone ; and he and Sir Charles Bell still remain the only instances. Indeed, to such an absurd extent has this idea been carried, that medical men have quite commonly been excluded from among the over-

* Mr. Chadwick, *Med. News*, Sup. for May, 1844.

seers of hospitals, the trustees of medical colleges, and even from boards of health, in times of danger from fearful epidemics. Which of the other two professions would uncomplainingly submit to such abuses? What other class of men would endure such a violation of their rights, except that whose very life is worn out in a constant series of self sacrifices?

These remarks do not apply to so great an extent in a popular government like our own, and yet even to our own country they are not altogether inappropriate, as all are aware.

3. Still another relative disadvantage of medical men, is the fact that their intercourse with their fellow men is more direct; their contact with the minds of others is more perfect than is the case with the other two professions. Hence they have not the advantages for the *concealment* of any actual deficiencies of knowledge, which the others possess. If they attempt to act a borrowed part, they cannot, like other professional men, have stated times for dissimulation, and during which alone such efforts may be necessary for the accomplishment of their object. They may be called upon at any moment, and at once exposed to circumstances calculated to throw any man completely off his guard. While, therefore, the lawyer and the clergyman may be consummately ignorant of every thing not pertaining to his profession, and also deficient in that, and still may, by a little cunning and management, conceal much of his ignorance from the mass of those around him, the defects of the physician are discovered, mentioned, and perhaps even magnified, by all.

Thus it appears, Gentlemen, that medical men have allotted to them from five to twelve years less of life than lawyers, and from fourteen to seventeen less than clergymen; and that what little leisure they may command is broken by constant interruptions into mere fragments; while at the same time they are deprived of that governmental patronage which is such a powerful stimulus to the other two professions; and, moreover, if these opposing circumstances should produce any actual deficiency of knowledge, they cannot, to the same extent as the members of the other two professions, conceal it.

Surely these facts might seem a valid excuse for a compara-

tive deficiency in intellectual acquirements in medical men, if it really exists. Few men become truly eminent in the other professions, certainly, previously to the age of fifty years. Few works are written previously to it which confer on their authors an enduring fame; and yet most physicians are not permitted to attain to it. Such facts might seem, indeed, to *necessitate* an inferior intellectual standing in medical men. But there are also peculiar influences acting upon medical men, which elevate them above these obstacles, imposing as they appear, and which confer an intellectual equality, to say the least, in spite of them.

1. In the first place, the nature and extent of medical science is such as to secure to those who thoroughly study it, an amount of mental expansion and acquisition not imparted by the study of any other profession whatever. It embraces the most important departments of science to which the human mind can be directed. It investigates not only the structure and the functions of the body, but also the intellectual and moral faculties; and develops those laws, both of our intellectual and moral constitution, without which neither law nor theology could have any basis on which to rest. Hence medical studies transcend all others in point of intrinsic interest. Those who are accustomed to decry certain departments as uninteresting, are individuals who have never acquired a thorough knowledge of that which they condemn. Physiology alone, including, as it properly does, the whole domain of psychology, affords the basis of the *science* of theology, and alone contains far more of interest, as a learned jurist has assured me, than the whole science of Jurisprudence. Medical men are therefore necessarily familiar with much that is generally supposed to be peculiar to the other professions; while the latter are under no similar necessity in respect to medical science, and, as a matter of fact, are well known by medical men, generally to be profoundly ignorant of it.

Indeed, medical science may be said to include within its domain some portion of almost every department of human knowledge. Hence its effect in expanding the intellectual powers; an effect not often attributed, I believe, to legal pursuits, and too seldom resulting, at least, from exclusive theological study.

And not only is the thoroughly educated medical man expected to possess this vast amount of *professional* knowledge, but his mind is peculiarly prepared by its acquisition to make rapid acquisitions in other, *non-professional* departments of science. Inasmuch as the medical sciences relate to matters of fact, the fundamental requisite for medical investigation is the habit of minute and accurate observation; conversely, medical investigations perfect this habit, and by thus rendering the mind active and discriminating, ensure success in any other department of science. On the other hand, just so far as a profession is based on hypothesis, speculation, or mere authority, so far it fails to enable its members to appreciate the relations and the importance of other non-related departments of science, and even indisposes to a general cultivation of the intellectual powers. How far this last remark applies to each of the three professions respectively, every thoroughly educated man is competent to judge.

2. But there is another reason, also, why medical men should make liberal acquisitions in *non-professional* knowledge. Unlike other professional men, they have constant intercourse with all classes of people, with all varieties of taste, and all grades of intelligence. Still, they must be able to *sympathize* with all these varieties; and therefore must be familiar with their circumstances, and with the topics in which they are interested. Moreover, the physician cannot prepare himself for each particular occasion; he has no previous notice given. He must be prepared with a fund of general information for all occasions that may arise. And certainly, on the other hand, his constant intercourse with such a variety of minds gives him an opportunity for its acquisition, which no other man enjoys. But it must also be accurate, as well as varied; for he is ever, unlike the lawyer and the clergyman, exposed to a rigid scrutiny; to that nearer view, which detects, and perhaps also magnifies, all defects. How many a physician, of undoubted excellence in his profession, has failed because he could not endure this ordeal, as a man of general acquirements. How many have succeeded in the other professions merely because they found themselves able to keep aloof from such a scrutiny; and to which in the performance of their

appropriate duties, as being mostly of a public character, they were comparatively but little exposed.

3. Thus medical men are more directly dependent for patronage upon the good opinion of *individuals*, than other professional men ; and upon being respected as mere men, in addition to their professional character. Herein, also, is found another powerful inducement to mental cultivation, not equally felt by the other professions. Many a legal man may be employed, merely because he is a good lawyer, however he may be despised as a man. This is also nearly as true of the clergyman, so far as his general intelligence is concerned, though not so, of course, in respect to his moral character. But the physician must be a good member of society, in all respects ; must possess the best *social* qualifications, or his success is brief or limited. To know nothing *but* medicine is a sad thing indeed, however much may be known of that.

4. Another peculiar consideration still, impels the conscientious physician to be thorough in all his acquirements ; the idea, which never ceases to weigh heavily upon him, that not only his own reputation, but sometimes even the lives of others, must depend upon the accuracy of his judgments, though necessarily formed in some peculiar emergencies almost with a moment's deliberation.

These, Gentlemen, are the influences which enable medical men to overcome the obstacles I had before mentioned, and still to assert an intellectual eminence equal at least to that of the other professions.

II. I will next introduce positive testimony, and from unquestionable authorities, in proof of the assertion just made.

Dr. Johnson, who was well acquainted with the most intellectual men of his time, of all professions, remarks that "the physician is more apt to cultivate all the powers of his understanding, and all the departments of nature together ; and has, therefore, been more distinguished for an enlightened and comprehensive view of the various subjects for reason, than *any other* class of mankind." In his life of Garth, also, he pays a high compliment to the medical profession, and quotes Temple as saying that "the medical has more learning than the other faculties."*

* Vide p. 1.

Indeed, he almost hated Swift for his unprovoked bitterness towards the medical profession; and I might also quote his high opinion of the moral character of physicians generally, if I were now considering that subject.

The learned and revered Parr, intimate with the learned and gifted of all professions, remarked, "Whilst I allow that peculiar and important advantages arise from the appropriate studies of each of the three learned professions, I must confess that in erudition in science, in habits of deep and comprehensive thinking, the preëminence must be assigned in some degree to physicians."

Napoleon, also, remarked, with his characteristic discrimination, that, though his remedies were starvation and the warm bath, he still entertained a higher opinion of the medical profession than of any other. After mentioning the deleterious effects upon the mind of the study and the practice of the law, the hypocrisy of the priesthood,* and the exceptionable traits of the military profession, he adds, "But surgeons are neither too good nor too bad. Their mission is to benefit mankind, not to mystify, nor influence them against each other; and they have opportunities of studying human nature, as well as science, not accorded to other men."

Still another tribute to the learning of the medical profession in his country, was paid by the French Minister of Public Instruction, in a speech before the Medical Congress in 1846. "What other profession," said he, "gives such securities to the State? You alone, before taking your position in society, before rendering it that assistance which is the fruit of your arduous labors, have to pass through three different faculties; that of arts, of sciences, and finally that of medicine. From no other profession, or class of society, is so much required." [*L. Lancet*, May, 1847, p. 375.]

The same is also asserted by Rousseau, as true in his day. "No profession demands more study than theirs, (that is, physicians.) In *all countries* they are the most truly learned, and useful men."† And I might quote Voltaire, to a similar purport.

* Of course he could judge only of *Catholic* priests. † Millingen's *Curiosities of Med. Experience*, p. 8.

Cuvier, also, says, "medicine is the most extensive of sciences, the most useful of arts." Sir Wm. Blackstone says, "the gentlemen of the faculty of physic have the character of general and extensive knowledge; a character which the profession, *beyond others*, has remarkably deserved."

But I must not farther occupy the time on this part of my subject, and will merely add the testimony of DeQuincy: "The medical profession composes the most generous and liberal body of men among us; and, taken generally, by much the *most enlightened*."*

III. These opinions being correct, we may easily credit the assertion of Montfalcon, that "a physician of genius is the most magnificent present that nature can make to the world." But I now proceed to test their correctness, and demonstrate the proposition with which I commenced, by a reference to the *history* of medicine itself.

We have seen that the opinions of Galen were received as unquestionable authority up to the beginning of the sixteenth century. But as the mind of Europe began again to arouse from its dormant state, and the other sciences again to be cultivated and advanced, that of medicine, also, which has ever been modified by the prevailing intellectual tendencies of the times, (as is indeed the case with all the professions,) was destined to undergo important changes. The phases through which it passed, as one science after another was in the ascendant, have been called *systems*. With these every medical man should be familiar, but I regret that I can but merely name them here.

The system, so called, of Paracelsus replaced the doctrines of Galen, about the year 1530. It consisted rather of denunciations against Galen, than the substitution of anything better instead; since its propounder was an unprincipled quack, and was distinguished for his recklessness in practice, together with a smattering of chemical knowledge, rather than for any high moral or intellectual attributes. He, however, stumbled upon some valuable facts, as is now and then the case with his descendants at the present day. About the year 1610, however, Van Hel-

* Quoted in Eclectic Review, August, 1847, p. 503.

mont somewhat extended, and otherwise modified the notions of Paracelsus; and thus originated the *chemico-theosophical* system, as it has been termed. This was replaced, fifty years afterwards, by the *chemico-material* system of Sylvius; which latter, in about fifty years more yielded in its turn to the *psychiatric* system of Stahl. It is interesting to observe the analogy in many respects, in a *practical* point of view, between this system and the one called homœopathy at the present day. It was, however, too absurd to be extensively adopted, even at that day; and together with its contemporary, the *iatro-mathematical* system of Borelli, was exploded soon after seeing the light, or about 1720, by the *dynamic* system of Hoffman; which recognized the influence of the nervous system and the vital force in the production and cure of diseases, and thus laid the foundation for the sciences of physiology and pathology as they exist at the present day.

Not, therefore, till after the year 1700 was the science of medicine placed upon its true foundations. Harvey had published his discovery of the circulation of the blood in 1620—a year ever memorable to us, the descendants of the pilgrims; but the motions of the vital fluid had been hitherto explained upon merely mechanical and hydraulic principles. But during the two hundred years previous to this date—to the disenthralment of medical science from systems—not a few great names occur in our profession; some, at least, of which I must not omit to mention.

1. Between 1500 and 1600. In *England*, the celebrated doctors Linaere and Caius; in *France*, Sylvius, the anatomist, Ambrose Parè, the father of French surgery, who first taught to heal wounds by the first intention, and Servetus, as much distinguished in theology as in medicine; in *Holland*, Vesalius, who gave birth to the science of anatomy, and Varolius; in *Italy*, Fallopius and Eustachius, Fabricius ab Aquapendente, the preceptor of Harvey, and the father of modern surgery; Tagliacotius, immortalized in *Hudibras* as the father of rhinoplasts; and Sanctorius, who first called attention to the cutaneous and pulmonary transpirations.

2. During the *seventeenth* century—the century of systems, as we have already seen—we find, besides many others, the fol-

lowing illustrious names. In *Great Britain*, Sir Thomas Browne ; Dr. Darwin ; Wisemann, the father of British surgery ; Sydenham, the English Hippocrates ; Lower, who first suggested the idea of transfusion of the blood ; Wharton, Willis and Glisson, whose names are incorporated into the nomenclature of the science they advanced ; Drs. Goulston and Radcliffe ; Harvey, and the celebrated John Locke ; in *France*, were Pecquet, Vicussens and Tournefort ; in *Germany*, Wirsung and Schneider, and Stenon, the Dane ; in *Holland*, this period was distinguished by the names of Bidloo, Graaf, Ruysch, the best of minute anatomists, and who sold his museum, made by himself, to the czar of Russia, for 30,000 florins ; Nuck and Tulp ; Leuenhoek, the originator of microscopical anatomy, though not a physician ; and Swammerdam, the most ingenious of all dissectors of insects ; in *Italy*, I can only mention Bellini, Borelli, Malpighi, distinguished in minute anatomy, and who first saw the circulation under the microscope ;* Lancisi, physician to three successive popes ; and Ramazzini, distinguished for his varied learning.

3. We now arrive, Gentlemen, at the beginning of the *last* century ; when the science of medicine began to be no longer trammelled by the systems I have mentioned, and when it was at length placed by Hoffman upon a basis which time can only render still more permanent. Hence its rapid advancement since that time ; and the fact, also, that though many exclusive sects and systems have since arisen, and some still exist also, no one of them all has ever been extensively adopted by the medical profession, nor indeed been adopted at all by the best minds in it. Of the multitude of illustrious names which have adorned our profession from 1700 to 1800, I will select a few of the most influential upon our science. And first I will mention a few whose reputation belongs to no country, but is coëxtensive with the civilized world.

Frederic Hoffman, already alluded to, became a professor in the university of Halle, in 1700. He introduced many valuable remedies into the practice of medicine, and was the first to establish the true basis of physiology and pathology, as I have already

* About 1650.

explained. He was sent for in 1734, to visit Frederic III. of Prussia, and to some abusive language from that brutish monarch, he replied, as no other man living could or would probably have dared to do: "I cannot bear reproaches which I do not deserve. I have tried all the remedies which art can supply, or nature can admit; I am indeed a professor by your majesty's bounty; but if my abilities or integrity be doubted, I am willing to leave, not only the university but the kingdom also; and I cannot be driven into any place where the name of Hoffman will want respect."

Contemporary with Hoffman, were Valsalva and his pupil Morgagni, and Baglivi in *Italy*; Boerhåave in *Holland*; Petit in *France*; and Cheselden in *England*.

Boerhåave became professor at Leyden in 1710,* and his pupils were so numerous as with difficulty to find accommodations in that city. He effected a revolution in medical science. He is the author of the humoral pathology, now, after more than a half century of disrepute from the ridicule of Dr. Cullen and his followers, to be regarded as permanently established. He proposed a theory of inflammation far more consistent with the present advanced state of physiology and pathology, than most which have followed it; and his aphorisms and institutes of medicine were translated into every European, and also into the Arabic language. He was consulted by princes and even royal personages from the most distant parts of Europe. But uncommon as was his learning, it was less so, says his biographer, than his virtue. I should delight to dwell on the moral character of this truly great man, did this enter into my present plan.

J. L. Petit† was so remarkable for intellectual activity while a child, that he was made superintendent of the anatomical theatre of a distinguished anatomist in Paris, at twelve years of age. Admitted to the practice of surgery at the age of twenty-six, he soon became the oracle in his profession throughout France, and his reputation extended through Europe. The kings of Poland and of Spain endeavored, by magnificent presents, to retain him near their persons, after he had cured them; but he prefer-

* Born 1668. † Born 1674.

red his native place. His numerous contributions to the advancement of his art are models of elegance of style.

Valsalva, the pupil of Malpighi, was eight years the senior of Petit, and reflected almost equal honor upon Italy. He greatly simplified the surgical instruments then in use; first employed manual operations for the cure of deafness; and banished the practice of cauterizing arteries after amputations. Morgagni* assisted his preceptor in his investigations upon the organ of hearing; and became a professor at Padua in 1712, and from that time was ranked at the head of the anatomists of his day. He commanded universal respect, and attained to the age of ninety years. His work on the "seat and causes of diseases," has rendered his name illustrious by its remarkable accuracy, and is still read with great profit by medical men. Baglivi, born the same year with Boerhäave, though he died at an early age, left a remarkable and still valuable work on the practice of medicine, in which he condemned the too exclusive attachment to theory in his times, and earnestly recommended the Hippocratic method of observation.

Dr. Cheselden was also born the same year with Boerhäave and Baglivi, and began to lecture on surgery at the age of twenty-two. He was the most distinguished lithotomist of his time, and patients are said to have crossed the Atlantic to consult him.

At the middle of the last century, or one hundred years ago, we find another brilliant list of cotemporaries in the different countries of Europe. I can allude particularly only to Haller in Switzerland, Van Swieten and Albinus, in Holland, and Huxham and Pott in England; though I must also mention La Motte and Portal in France, Richter in Germany, and Linnæus, the celebrated naturalist, in Sweden.

Haller, a pupil of Boerhäave, has been styled the father of physiology. He first maintained that sensibility and irritability are inherent in the nervous and muscular tissues respectively; an opinion opposed for nearly a century afterwards, and now generally entertained by physiologists. Nor did his ruling passion for

* Born 1682.

physiological observation forsake him even in death. Placing his finger on his pulse, and perceiving it stop, he exclaimed, "My friend, I am dying;" and immediately expired.* He wrote between thirty-five and forty volumes, varying from octavos to folios, on anatomy, physiology, surgery, botany, pathology, and other departments of medical science.

Van Swieten, a pupil of Boerhäave, acquired great renown by his commentaries upon the aphorisms of his illustrious master, and introduced many improvements in the practice of medicine in Austria; he having been induced to become a professor at Vienna by the empress Maria Theresa.

Huxham† displayed great learning and talent for observation. He kept a register of the weather and prevailing diseases, for nearly thirty years, which was published in Latin in three volumes.

Pott‡ has the great merit of improving his profession by introducing milder methods of treatment. His works are all of great practical value, and his authority is still referred to in the treatment of fractures.

Dr. Cullen, a professor at Edinburgh, should be mentioned in this connexion also; since he exercised a great influence upon medical opinions, especially in *materia medica*, by his theories. He was one year younger than Pott.

Dr. William Hunter was the pupil, and afterwards the partner of Dr. Cullen, being six years his junior. His contributions to medical science were very numerous and valuable, and he was much consulted in all cases requiring great anatomical knowledge for their investigation. He practiced, during the last forty-two years of his life, in London.

But, Gentlemen, I am tempted from my purpose by the many names that present themselves to my mind; and with a notice of only three more, as adorning the last quarter of the last century, I must pass on to the present.

John Hunter§ was a brother (and ten years younger,) of Dr. Wm. Hunter, whose pupil and anatomical assistant he became, after having been under the tuition of Cheselden and Pott. He

* In 1777; born in 1708. † Died 1768. ‡ Born 1713; died 1788. § Born 1728.

holds the highest rank as a surgeon, anatomist and physiologist, and has been termed the greatest man that ever adorned our profession. His industry was remarkable. For thirty years in succession, he never rose later than the sun, and alone collected a museum which was purchased at his death by government for £15,000, and which is now in the possession of the Royal College of Surgeons; a splendid monument of his genius and energy. For comparative anatomy and physiology he has done more than any other individual; having, indeed, it may almost be said, originated these departments of science. He made many important improvements in the treatment of surgical diseases; among these, I mention the treatment of aneurism by ligature. His works are still referred to as classics in his art. He died suddenly of a disease of the heart in 1793. It has been suspected that some of his discoveries were not attributed to their real author, by his biographer and professed friend, Sir Everard Home.

Zimmerman was born in Switzerland the same year with John Hunter, and was a pupil of Haller. His works gave him so extensive a reputation, that he became physician to the king of England for Hanover, in 1768; and sixteen years afterwards was sent for, to attend Frederic the Great, at Berlin, in his last sickness. On being presented to that monarch, the latter is said to have remarked: "You have, I presume, helped many a man into another world." "Not so many as your majesty, nor with so much honor to myself," was the appropriate reply. He died in 1795.

Desault was one of the numerous pupils of Petit, and first introduced clinical instruction in surgery into France; having been placed at the head of the Hotel Dieu at the age of forty-four.* He first brought method and accuracy into the science of surgery, and infused into his pupils, many of whom became the most distinguished surgeons of Europe, a generous attachment to their profession. He greatly advanced his art by new methods of treatment, and by improvements in surgical apparatus; that used by him for fractures of the thigh, still retains his name. He also died in 1795.

* In 1788.

Storck, of Vienna, first ascertained experimentally the properties of hyoseyamus, conium, aconite, stramonium and colchicum. His experiments extended from 1760 to 1771. Among others of the last century whose biographies I would advise you to consult, I will mention Dr. Mead, whose influence introduced the inoculation of small-pox into England; Drs. Armstrong, Akenside, Arbuthnot, Cheyne, Fothergill and Fordyce; Dr. Heberden, who first distinguished variella from variola, and first recognized angina pectoris as a distinct disease; White, the originator of the excision of joints; Dr. Beddoes, the teacher of Sir H. Davy, and whose work on hygiene gave him the title of the finest medical writer in England; and the elder Monroe, Dr. Gregory, and Dr. Black of Edinburgh. I will also name Winslow, a Dane, whose work on anatomy was translated into several languages; Le Dran, Chopart, and Le Clere, the author of the history of medicine, and Vieq d'Azir in *France*; De Haen in *Holland*; Schmucker and Zinn in *Germany*; Scarpa, Pacchioni and Galvani in *Italy*.

4. As we now review the first half of the *present* century, we fall upon a bright array of names, with which the youngest of us are familiar; and which, therefore, I will pass rapidly over; first mentioning some of those who have already ceased from their labors, and then those who still adorn our profession.

Of those, now deceased, who have honored our profession in Great Britain since this century commenced, I will remind you of Baillie, distinguished as a practitioner and pathological anatomist; the eccentric Abernethy, a pupil of John Hunter, and the most popular lecturer in London, of his time, in anatomy, surgery and pathology; John Bell, the most talented and forcible writer on anatomy and surgery of the present century; Sir Charles Bell, his younger brother, who revolutionized the physiology of the nervous system, by his discovery of the motor and the sensory endowments of the anterior and the posterior roots, respectively, of the spinal nerves, and who was pronounced, ten years ago, the best physiologist and pathologist in Europe; Jenner, the discoverer of the vaccine virus, which has saved millions of lives; Sir Humphrey Davy; Sir Henry Hallford; Sir Astley Cooper; Dr. Johnson, of the *Medico-chirurgical Review*; Dr. Wollaston; Liston, and Callaway; and Drs. Abercrombie, Carswell, Bostock,

J. M. Good, Thomas Young, Hope, and Andrew Combe ; names too familiar to need any comment.

Of those who have deceased in France since the beginning of the present century, I will remind you of Boyer, who greatly improved the instruments and apparatus of the surgeon ; Baron Larrey, Napoleon's chief surgeon through all his campaigns, his confidante and his friend ; Corvisart, his physician ; Bichat, the pupil of Desault, and editor of his works ; of whom, dying at the age of thirty-two, Napoleon said, " No one ever did so much, so well, in so short a time ;" Lænnec, the author of the invaluable methods of physical diagnosis, auscultation and percussion ; Dupuytren, the boldest operator of France in modern times ; Pinel, Breschet, Geoffroy St. Hilaire, father of the transcendental anatomy in France ; Lisfranc, Blandin, and Marjolin, more consulted by his professional brethren than any other surgeon in Paris.

Germany has, since the present century began, lost Meckel, Sæmmering and Rosenmuller, *anatomists* ; Blumenbach, Hufeland and Treviranus, *physiologists* ; and Dieffenbach, one of the most original operators of modern times. Of Italy, I mention Assalini, Rasori and Tomassini ; also Prochaska of Prague, who is said by some to have first discovered the reflex function of the spinal cord.*

And now, gentlemen, I will point those who would learn the *present* state of our profession in regard to its comparative intellectual standing, to such a constellation of cotemporary stars of the first magnitude, as, in my own opinion, no other profession has ever displayed ; to such an array of talent and learning as no age has ever before concentrated upon any one great object. I will mention the names of one hundred medical men in the different countries of Europe, which will compare favorably with an equal number selected at any age of the world, from any other profession whatever. I shall mention first the surgeons and accoucheurs ; second, the physicians ; and third, the anatomists and physiologists (including microscopists and organic chemists,) —of each country. Many of these names deserve a place in more than one of the classes just mentioned ; and in some instances

* See Forbes' Review, Jan. 1847.

I find it difficult to decide in which department they deserve the highest commendation.

Great Britain is honored by the names of Sir Benj. Brodie, Sir P. Crampton, Mr. Syme, Lawrence, Bransby Cooper, Guthrie, Sir James McGregor, Miller, Fergusson, Travers, Stanley, Hancock, Ansell, Lee, Montgomery, Simpson, Ramsbotham, Rigby, Murphy, Tyler Smith, and Churehill; Alison; Copeland, whose dictionary is the most learned, extensive, and perfect medical work ever produced by a single mind; Sir William Burnett, Drs. Holland, Chambers, Hodgkin, J. B. Williams, Latham, Watson, Walshe, Stokes, Graves, Clutterbuck, Barrows, Conolly, Percira, Golding, Bird, Roget, and Symonds; Marshall Hall, the discoverer of the reflex function, the greatest discovery since that of the circulation; Drs. Todd, and Bowman, Grainger, Carpenter, Paget, Solly, Wharton Jones, Sharpey, Quain, Wilson, Kiernan, and Bence Jones.

Our profession in France is now adorned by the names of Roux, Velpeau, Berard, Jobert, Gerdy, Guerin, Malgaigne, Amussat, Civiale, Royer Collard, Leroy D'Etiolles, Lallemand, and Ricord; Dubois, Moreau, Chailly; Chomel, Andral, Louis, Devergie, Piorry, Bouillaud, Rostan, Trousseau, Gibert; Adelon, Foville, Baron Flourens, the most distinguished physiologist in his country; Dutrochet, Milne Edwards, Donnè, Orfila, Dumas, and many others.

In Germany, we find the names of Stromeyer, Chelius, Juengken, Busch, Horn, Schonlein, Link, Schultz, Hecker, Sehlemm; Muller, the first physiologist in Germany; Wagner of Berlin, Horkel, Valentin, Wagner of Göttingen, Burdach, Baer, Schwann, the brothers Weber, Liebig, and Enderlin. To this list I also add Vrolik of Amsterdam, Frey of Zurich, and Matteuci of Pisa, as an honor to their respective countries. And I would increase it by the addition of not a few names belonging to our own country, were they not too well known among us to require particular notice here.

But I find I have exceeded the number I proposed to name; and though I could mention as many more of distinction in our profession, I must here close my review of the history of medi-

cine, so far as it goes to prove the high intellectual character of medical men in past and at the present time.

IV. But it may be supposed that the individuals I have mentioned were learned in *medical* science alone ; and this idea next deserves our attention. And I shall expect to show not only that this idea is incorrect, but also that medical men are remarkable for acquiring a far greater amount of non-professional knowledge than any other class of professional men ;—a result the very nature of their peculiar studies tends to secure, as we have already seen. Let us examine the facts which establish this proposition.

1. In the first place, it is hardly presumable that any person can acquire a world-wide reputation, to be handed down to posterity, who has not extensive *general* as well as *professional* knowledge. Moreover, as a matter of fact, almost every individual mentioned as adorning our profession during the two centuries preceding the present, was made a member of some one at least of the highest and most learned societies in Europe, and many were elected to several of them in different countries. I regret that my limits only allow me to make this statement, without establishing it by a specification of the particular names and honors conferred. But I must request you to refer for some of the facts to the lives of Malpighi, distinguished among the philosophers of his time ; of Morgagni, the favorite of three successive popes ; of Laneisi, the physician of as many in succession, and who founded a library of twenty thousand volumes, for the use of the public ; of Servetus, and Sir Thomas Browne ; of Bellini, a professor of mathematics at the age of 22 ; of Darwin, and John Locke, and Boerhæave ; of Haller, who at the age of ten years compiled a Greek and Hebrew Lexicon, and a Chaldee grammar for his own use ; and who became a botanist, a literary writer, a statesman, and one of the best German poets of the last century, and corresponded in German, Latin, English, Italian and French with all parts of Europe. Consult, also, in this respect, the lives of Zinn, Tronchin, Barthez, a doctor of laws as well as of medicine ; Vieq d'Azir, John Hunter, Sir Charles Bell, Dr. Thomas Young, John Mason Good, Blumenbaeh and Treviranus. I will not add the names of living medical men

who are distinguished for their great non-professional acquirements, as I should need again to repeat the list before given. Indeed, it appears that so far as acquirements are concerned, physicians have at all times inherited the spirit of Galen, who was also a master of eloquence and a great teacher of the *wisdom of his times*.

2. But next, let the *history* of the progress of the *non-medical sciences* demonstrate the general tendency of medical men to acquire an extensive amount of general information. The extensive classical attainments so characteristic of the medical men of the sixteenth and seventeenth, and a considerable part of the eighteenth centuries, were, to some extent, doubtless, a matter of necessity; since much of the science of medicine was then acquired, whether from books or public lectures, through the medium of the Latin language. But every department of science, and most of the arts, also, we shall find to have been advanced by the voluntary contributions and the discoveries of medical men.

The term "physician" is itself a title expressive of an acquaintance with all the laws of nature, and finds the appropriateness of its application in the fact that the physical sciences owe much of their present advanced condition to physicians. I will specify a few illustrations.

Astronomy owes its present condition especially to Galileo, who while a medical student and under 20 years of age, invented an ingenious instrument for measuring the rate of the pulse, which afterwards led him to the discovery of the pendulum. Moreover, Dr. Olbers, of Bremen, discovered three of the planets—Ceres, Pallas and Vesta;* and developed the laws of certain cometary motions.

Of the various departments of *physics*, that of pneumatics took its origin from Boyle, a cotemporary of Newton, and a medical practitioner. He also invented the air-pump and the glass prism, and some say, the thermometer also.† He also greatly advanced the sciences of hydrostatics and electricity. *Galvanism* takes its name from the Italian physician who discovered it. Dr. Wollas-

* In 1802 and 1807. † Others attribute this invention to Sanctorius, a physician of the sixteenth century.

ton invented the achromatic doublet, the first stimulus to the perfection now attained in the manufacture of the object glasses of the compound microscope. He also invented the camera lucida. The law of the interference of light was discovered by Dr. Thomas Young. The science of meteorology was advanced by the observations of Dr. Huxham, extending over a period of nearly thirty years.

Chemistry is indebted to Dr. Black, of Edinburgh, for the discovery of carbonic acid in white magnesia and in limestone; which was the basis of those discoveries which immortalized Cavendish, Priestley and Lavoisier. To Davy it owes the discovery, (besides many other things,) of the compound nature of the earths and alkalies, and the simple nature of chlorine, (previously called oxymuriatic acid,) and the invention of the safety lamp. Dr. Wollaston discovered two new metals, palladium and rhodium, and a method of rendering platina malleable. He also invented the scale of chemical equivalents and the goniometer.

Natural history may almost be said to have been created by the investigations of medical men. I need only mention Aristotle, the son of a physician, and himself also educated as one; Swammerdam, the entomologist; Dr. Caius, and William Hunter. Botany has been almost exclusively cultivated by medical men, till the close of the last century; especially by Malpighi, Lieutaud, Tournefort, Boerhåave, Haller, Sauvages, and Linnæus. Ethnology has received its richest contribution from Dr. Pritchard.

The invention of the art of printing is assigned by one of the two conflicting accounts of its origin, to a physician by the name of Faust. And indeed "most of the practical triumphs of science are to be traced to medical men. The knowledge of the power of steam, which has revolutionized the world, and the other mighty miracles which chemistry has accomplished, are due to their labors."* Dr. Young was remarkable for his knowledge of the applications of science to the useful arts, and the business of life, and exerted a vast influence, from the fact that he was often consulted by government, when such subjects became matters of legislation.

* L. Lancet, Jan. 1845, p. 74.

But medical men have also contributed to the *fine arts*, as well as the useful. The arts of sculpture and of painting are based, so far as the human form is concerned, upon the science of the anatomist. Sir Charles Bell was, however, himself an artist, both as a draughtsman and a painter; so were, also, his brother John Bell, and the anatomist, Eustachius. Moreover, the most splendid architectural design in France, the façade of the Louvre, was made by Perrault, a physician.

Poetry also has been enriched by medical men. Besides Haller, already mentioned, I will name Darwin, Armstrong, Aken-side, Schiller, who was for a time an army surgeon, and Zimmerman. But in this department, as well as in that of fiction, I find but few physicians; as they have ever been decidedly *matter of fact* men. The only writer I now recollect in the last mentioned department, is Eugene Sue; and he, I trust, might have served his country (and others also,) much better, had he till now remained an assistant surgeon in the French navy.

I mention but a single branch of science more, and this also has been formed almost exclusively by medical men. I allude to *metaphysics*. The authority of Aristotle, received as absolute in some of its departments for about two thousand years, has already been alluded to. Locke, also, was indebted for much that is contained in one of his works,* to his intimacy with Sydenham, "one of the master-builders of learning at this time," as Locke himself terms him. But Locke was also himself a physician, and Dugald Stuart says, "no science could have been chosen, more happily calculated than medicine to prepare such a mind for the prosecution of those speculations which have immortalized his name." Hartley, Mackintosh, and Brown were also physicians; and we know that medicine was a favorite subject with Socrates, Bacon, Descartes, and Berkley.

Thus, Gentlemen, we perceive that the opinions of the wisest and best, since the earliest times; the history of medicine itself, and that of the numerous sciences and arts which have been advanced by medical men, all conspire to prove that the charge of ignorance, as peculiarly applicable to the medical profession, is en-

* Essay on the Human Understanding.

tirely unfounded ; and that in respect to the intellectual standing of its members, it has at all times been fully equal, to say the least, to the other two professions. That there have at all times been ignorant men in it, is admitted ; but that the number of such in the other professions has been proportionately quite as great, is equally certain. Systems and theories have also sprung up from time to time, which by their absurdity and brief continuance are calculated to throw ridicule upon our science, in the view of those who cannot distinguish it from them, and who are not aware of the contempt with which such vagaries have ever been regarded by the best medical minds. But, on the other hand, many more systems have arisen to throw discredit upon the clerical profession. Still, the great truths of the Bible are not annulled by the latter ; and still the foundations of medicine are undisturbed by the former. These systems and theories are but ripples upon the surface of the vast ocean of medical science, while all is calm and permanent below. Doubtless they will ever continue to appear from time to time, as has been the case in the past ; for the causes which originate and keep them alive inhere in certain mental imperfections, which some men will at all times be found to manifest. But as in the past, so in the present and the future, all such aberrations will soon give place to their successors.

Does any one, therefore, at the present day, presume to pronounce the science which has been perfected by such a series of men as I have mentioned, for more than two thousand years, a humbug ? and thus imply that the most splendid intellects, and the most generous and high minded men of all ages, have been occupied, though conscientiously as no one can doubt, in building up a mass of folly and absurdity ? while he himself, forsooth, is wiser than they all ? Does he even go farther in his wisdom, and propose some *partial* system, or mere theory, as something better than all that others have done during these two thousand years, and as, therefore, destined to supplant our science ? But I need not make these inquiries, nor perhaps wonder at the folly, without a parallel in other affairs, which such a course of action implies. We, even now, have at least four systems proposed to us,

each one better than the other three, (if we might credit the pretensions of each,) and *all* of them better than scientific medical practice; and each one destined, *because* the best of all, to supplant all other systems. I allude to the botanic, the hydro-pathic, the homœopathic, and the chrono-thermal systems. But are we to learn nothing of the past? Each of the systems of the seventeenth century, and indeed every system since, has made the same pretensions, and where are they now? Are we told that Hahnemann (though I think this has never been affirmed of Thomson or Preissnitz,) was a man of great genius, and great acquirements? So were Van Helmont, and Sylvius, and Stahl, (his prototype,) and Brown, and Broussais; and some of these far superior to Hahnemann in both these respects. But it may be supposed this system has already lived long enough to ensure its perpetuity. But those of Paracelsus and Van Helmont existed much longer. Moreover, homœopathists are already divided into two parties; and we have the highest assurance that “a house divided against itself cannot stand.”

In regard to the *merits* of homœopathy as a system of practice, I will make a single remark. It is essentially the *expectant* system, (as was also the system of Stahl,) with the addition of a globule to sustain the patient's confidence. *Medicinally* it is entirely inefficient; and hence, when decided medicinal effects are required, it is literally *nihil*. On the other hand, in cases where no medication is required, it has the merit of being perfectly safe. Two classes of practitioners may, therefore, adopt homœopathy with advantage to their patients; those who are ignorant of the effects of active remedies, and those who administer them recklessly; just as a wooden sword is better in the hands of a soldier, provided he is an idiot or a madman. I am speaking, of course, of *homœopathy literally* carried out in practice, in accordance with its professed principles; and not of those who use medicines in large doses when they find they must, and yet profess to be homœopathists exclusively.

You have, then, Gentlemen, chosen a profession which brings constant anxiety and many discouragements, from the tendency to quackery which keeps alive the systems I have enumerated. But

it is one, of which it is a sufficient honor to any man to be truly worthy. If you hear it maligned, remember those who have preceded you, and those who are now your co-laborers in it; and rejoice that it is one which from its very nature is calculated to expand your intellectual powers, enlarge your sympathies, and make you charitable towards all men. Never doubt it will do you honor, if you deserve that honor. But forgetting all merely selfish considerations, aim to fulfil, as men and as christians, the duties of your high vocation; ever stimulated by the sentiment of the poet—

“Tis not in mortals to command success,
But we’ll do more, Sempronius, we’ll *deserve* it.”

