MEDICAL EDUCATION AND
LEGISLATION:
FROM THE
VALEDICTORY ADDRESS
TO THE CLASS OF '92, MISSOURI MEDICAL COLLEGE.
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From the Valedictory Address to the Class of 1892, Fifty-first Annual Commencement of the Missouri Medical College, St. Louis, March 15, 1892.

BY PROF. GEORGE J. ENGELMANN, A.M., M.D.

SAINT LOUIS.

Ladies and Gentlemen:

YOU, who grace this occasion with your presence, will bear with me, as friends of the young men who graduate here to-night; as friends of this institution, as citizens of this state, if I address you upon a subject which is neither pleasing nor entertaining, but timely and pertinent to the occasion. It is the subject of medical reform—of medical education and legislation, important to us all as citizens and as individuals—as living human organisms subject to disease, and it is important, above all, to us in this great state of Missouri, which as yet lags behind even her younger sister-states, regardless of the efforts of her profession.

We are well aware that proficiency and success in any branch of the arts and sciences—in any form of useful activity in life—demands more or less preparation; and that the time which may have been allotted for such preparation, fifty and even twenty years ago, can no longer suffice in the present state of our civilization, which has advanced with giant strides, seemingly more and more rapid as we near the close of this wonderful nineteenth century. Throughout our great country we see this exemplified in
the expanse and development of preparatory and educational institutions of all kinds.

And what, pray, do we see in this our own state of Missouri? I will not direct your attention to the striking progress in our admirable public school system—the foundation of all preparation and education; nor will I ask you to consider the preparatory schooling of the student of the Arts and Sciences, as it would lead to unnecessary detail. Give but a thought to the preparatory training demanded of those who engage in occupations which we have been in the habit of looking upon as far more simple, and not requiring training and study.

Look upon the Manual Training School, a pioneer institution, and a model for its kind, where brain and arm are trained in the use of the tools of trade. We have the Nurses' Training School, where for full two years, the young woman, adapted by qualities mental and physical to the occupation of her choice, is instructed in the theory, and taught in the practice of nursing. Those of us who have the good fortune to have had her aid at the bedside, and those of you, to whom she has ministered in disease, with skilled and gentle hand—we all cheerfully recognize the blessings of such training.

It may be a surprise to many of you to know what is taught in the School for Garden Pupils—an institution established in connection with the Missouri Botanic Garden—the pride of our city—by the forethought and munificence of that large-hearted philanthropist, Henry Shaw.

The garden-pupil who spends his first year with the hoe and the spade, in the practice of his art, is only admitted after an examination upon the subjects taught in the upper classes of the grammar schools; more is asked of him before he is allowed to enter this school than is asked by many of our medical colleges of those whom they admit within their portals. He is instructed in botany and entomology, in vegetable physiology and forestry, in floral culture and in orchard-culture, in vegetable-gardening and landscape-gardening, in drawing, surveying and book-keeping.

The curriculum has just been reduced from a term of six years to one of four years.

Four years of theory and practice for the progressive gardener before fruit tree or flower are entrusted to his care.

And what do the laws of Missouri require of him into whose hands health and happiness, yea, life and death of her citizens are given? Two terms of study, of six months each!

It is not so long ago that the young man who had read medicine for a few years with some busy preceptor, was allowed, after attendance upon one course of lectures in a medical college, to offer his services to the public as a practitioner of medicine. Then, as our shifting population became more firmly settled, more time was allowed for medical education, and it was deemed proper that the physician should have spent at least two years in the lecture halls of a medical college before graduating; and such is our condition still—whilst in our more progressive sister-states, three full courses of lectures and four years of medical study are demanded before the degree of Doctor of Medicine is granted, or the license to practice within their boundaries is given; and before the close of the present year such will be the law
in three-fifths of the states of our Union. *Two years of study still admit to practice* in this state; this will hardly appear to you a desirable condition of affairs, and you will naturally inquire why is this so? What are the causes? the results? the remedies?

Ere I answer these questions, let us briefly review the present status of medical education in this country.

In 1891, according to the Report of the Illinois State Board of Health, to which I refer for all the following facts, we find in existence in the United States 111 institutions in which regular medicine is taught, and which have the power to confer degrees in medicine; that is, 111 institutions whose diplomas are recognized by the Boards of Health in the majority of such States as have special laws governing the practice of medicine. Including inferior and irregular schools, we have a grand total of 135.

In 1883, these institutions graduated 2,000 Doctors of Medicine; this annual harvest, added to the imported medical talent, swelled the number of those who practiced the healing art to such numbers, all in all, regulars and irregulars, that in these United States we find one practitioner of medicine (of some kind) to every six hundred inhabitants.

It will be of interest to make some comparisons between the number and character of our institutions and those of other countries. To the 135 medical schools of the United States, or if you prefer, to the 111 in thoroughly good standing, recognized by every Board of Health, Canada appears with 13 institutions in which a medical education can be acquired; Great Britain has 13; France only 6; in Germany we find 20, a comparatively large number, which is explained by the previous independence of the various smaller principalities, each one of which has its university. Spain and Mexico each have 9 medical schools, Austria 7, and Turkey 2.

In the United States we have one practitioner of medicine to every 600 inhabitants; in Germany we find one in every 3,000; in Austria one in every 2,500; in France one in 1,814; in Great Britain one in 1,652, and in Canada one in 1,193.

If we compare the time required for study in our medical schools with that demanded by foreign institutions, we will see that the study of medicine is, to say the least, greatly facilitated, is indeed underrated, made little of in the majority of institutions in this country. In 1891, eighty-five medical colleges throughout the various states of the Union made three years of study obligatory. The remaining forty-six still adhere to the two-year system. Italy, Spain and most of the South American countries require six years of study. In Russia five are necessary, in Germany, in Austria, and in England four years. That is to say, the examination for the degree of Doctor of Medicine can, at the earliest, be attempted after four full years, or eight semesters, of study. Hence, practically, the term of study in all European countries is at least five or six years, to the two and three years, consisting of one obligatory six months' course each, in these United States.

Abroad, no one is admitted to the study of medicine until he has absolved a course of study equal to that of the college in this country, whilst the preliminary examination demanded by the majority of our medical schools is merely nominal and scarcely covers perfection in the three R's. Not alone
must sufficient time be given that medicine may be thoroughly taught, but
the soil must be prepared, if the seed is to develop, and it can be taught only
to those already trained to study.

In the number of diploma-granting medical institutions, as in other
things, we lead the world; but when we inquire more fully into the charac-
ter of many of our institutions and into the state of medical teaching in our
land, our pride must suffer a shock—a rude shock. Let us be candid: The
medical world knows the facts; why should not the American doctor ac-
knowledge them, and the American citizen know them?

Highly as the brilliant men of our profession—and we have many of
them—are honored and esteemed abroad, the American diploma is ignored.
I am unjust; the diploma of all American nations is honored, but not that of
the grandest of them all, these United States. It is a sad fact that the
diploma of but few of our medical schools is recognized. The civilized world
knows that a medical education cannot be acquired until the solid foundation
of a thorough general education is first given; the world knows that thorough
medical education, such as the welfare of the people demands at the present
day, cannot be acquired, even by the most gifted, with less than three years'
attendance upon lectures and clinics, and the world knows that the majority
of our medical schools demand neither such preliminary education, nor a cur-
riculum sufficiently long or thorough. We must know and face these
humiliating facts; you may say that this is a young country; but so is Can-
da and Mexico; so is Cuba, Brazil and poor little Chili. These states
expect what other countries do of the student and of the graduate in medicine,
and their diplomas are respected. The diploma of every medical school of
these United States must acquire for itself the same standing; and if the
faculty does not arise to the demands of the higher education of the day, the
people through their legislators must protect their interests at home and their
standing abroad. Let the people of this country who so proudly claim to
stand in the very front ranks of modern civilization, thoroughly realize the
wretched state of many of our medical schools, and they will soon force a
change; they will no longer be behind—far behind, though we now be—what
we are pleased to term the effete monarchies of the East or the semi-civilized
natives of the West.

Medical practice and medical instruction must be brought to a certain
standard, and the highest standard demanded by the law in this country is
still below that required by any other civilized nation. We have too many
medical schools; it is evidently not the love for medical science which accounts
for the superabundance of such institutions in this country; we must look
to causes less lofty. Might it be the desire for title, for position and prom-
ience? Might it be the desire for the "professorship" which brings a cer-
tain amount of publicity, perhaps of notoriety, if not distinction, at times
remuneration? A full-fledged medical institution is quickly hatched, when-
ever the demand for professorships arises! A charter is easily acquired
under the lax laws prevailing in many of our states, and trustees with nom-
inal duties are readily found.

Students are attracted with ease; a small fee, a short course, and a
diploma soon granted, will at any time concentrate a number of ambitious
youths, and deprive the counter, the work-shop and the plow of worthy followers. We of this country do as we will.

I have given you the impression that there is much in our system of medical education which is not as it should be. This is true indeed, but readily explained by our youth, our independence of action and the extreme freedom permitted by our laws. Yet the standard of medical education is rapidly advancing, and our best institutions rival the first of any land. Great have been the changes wrought of late, and I am proud to say that from our sister State of Illinois came that great wave of medical reform which is now surging over the land. To the impetus given by the action of the State Board of Health of Illinois, and its able Secretary, Dr. Rauch, whose name must ever be mentioned in connection with medical legislation and education, is due the present greatly improved status.

The leading medical institutions of this country, eighty-five in number, demand of their students an attendance upon three full courses of lectures for graduation, and a preliminary examination, many of them a preceding year of study with a preceptor, making the full term of medical instruction four years. We have thirty-two medical examining boards in this country, which are independent of teaching, and which aid in guarding their states against the influx of ignorant practitioners. All but five of our states have enacted practice laws, some of them, indeed, merely demanding registration of a diploma; but the States of Minnesota, of Montana, North Dakota, Washington, California, Colorado, New York, Illinois, Iowa and Oregon issue the license to practice medicine within their limits only to such applicant as can certify to attendance upon three full courses of medical lectures— who can present the diploma of a three-term medical college.

This result, gratifying indeed, has been achieved by the combined action of independent and advanced medical colleges, and by legislation, as ordained by the demands of a progressive profession and an enlightened public. And why is this not so in our own State of Missouri?

Our State Board of Health is noted in the Illinois Report of 1891 as having under consideration and contemplation the early adoption of the requirements of a three years' graded course, and four years of study for the medical colleges of the state, but we now know that the Board has refused us this law, as our legislature has denied it to us!

What then is our position amid our sister-states who have yielded to the demands of progress and of higher medical education?

It is mortifying to us, her citizens. Few restrictions are placed upon the practice of medicine within the borders of this commonwealth, which offers a fair field for those whom the more stringent laws of other states exclude from the practice of medicine, as dangerous to the community. But few of the fourteen medical colleges upon her soil as yet actually demand of their students three years of study for graduation.

Unless a change takes place, the young men who graduate in the colleges of Missouri will be debarred, in other states, from the practice of the profession they believe to have entered. They will be debarred from the practice of medicine in the State of Illinois; they cannot exercise the skill they have acquired, on yonder side of this Mississippi river. Not in Illinois
to the East, not in Iowa to the North, not in the younger states of Minnesota, of Montana, of Dakota, of Washington, of Colorado, or of California.

The legislature of Missouri has denied our people the protection they sought. The bill prayed for by over fifteen hundred of the most enlightened of her profession, urged by the combined action of her medical colleges, demanded by the sentiment of her people, and passed by the House, was defeated by the Senate.

And upon what grounds were the Senators urged to that vote? It was upon the ground of "class legislation" and "injustice to the poor boy." Such was the argument against the bill before the Senate committee. They were told by the representatives of the only medical college in this state which opposed the bill, that it was unconstitutional, as an act of class legislation, "discriminating between colleges," and that it would be a "hardship to the poor boy" were he to be obliged to incur the increased expense of a third year of lectures and clinics.*

In the Senate of this state lay the obstacle to the movement for medical reform. Checked and harassed, halted for the time, the cause of medical education does still progress. Regardless of the defeat of this law regulating more strictly the practice of medicine in Missouri, the more advanced of her medical colleges have pledged allegiance to the cause of higher medical education and will soon adopt the three years' graded course, as we see it now in this institution.**

It is now an assured fact that graduation in three-term medical schools only can admit the physician to practice in each and every state of this Union. Necessity will exact what the demands of the profession have failed to attain, as the student will hardly seek a diploma, granted after only two terms, which is refused by the laws of numerous states and does not permit the practice of medicine within their confines.

The interests of the people and the interests of the profession, medical education and medical legislation go hand in hand, and the laws of the state will soon combine with our medical schools in the good cause. Public sentiment and the necessity for self-protection, if not State pride and the spirit of progress, will, ere long, force our legislators to retrieve the unfortunate error of the past year, and they will enact for the state of Missouri such laws, regulating the practice of medicine, as will again place her foremost in the rank of progressive states.

*The facts in the case are tersely and clearly stated by Dr. C. A. Todd in his letter to the Journal of the American Medical Association of April 11, 1891, p. 532: and to this I refer for a detailed statement of the affair.

** The medical journals are calling attention to this fact. Since delivering this address we find in the Journal of the American Medical Association of March 10th, a warning to St. Louis medical students, in which attention is called to the fact that most of the medical schools of this city demand only two courses of lectures and that "unless this is altered their graduates will find more than half of the states of this Union closed against them."