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ADDRESS.

PRELIMINARY EDUCATION, PROFESSIONAL TRAINING AND PRACTICE IN NEW YORK.

Address before the sixth annual meeting of the National Confederation of State Medical Examining and Licensing Boards, Atlanta, Ga., May 4, 1896.

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A few years ago the terms "American doctor" and "Philadelphia doctor" were current in Europe as synonyms for incompetency. This fact was most disagreeably impressed on my mind when as United States consul at Aix-la-Chapelle I was asked to testify in a case before the German courts touching the value of a Buchanan diploma.

The circumstances connected with this German trial were vividly recalled last month by one who seemed anxious to equal the record of Buchanan in selling medical degrees to all comers.

A young pharmacist who had never studied at a medical school asked me if I thought a medical degree from the Wisconsin Eclectic Medical College worth \$35. In response to my questions, he submitted certain letters, the first from the president of the institution which offered the diploma (see JOURNAL, Vol. XXVI, p. 838), the second, which we herewith give, from the Secretary of State of Wisconsin, answering a question asked by the young pharmacist.

DEPARTMENT OF STATE, MADISON, WIS., April 14, 1896.
Mr. —, Albany, N. Y.

Dear Sir:—In reply to yours of April 10, will say that the Wisconsin Eclectic Medical College of Milwaukee is a regularly incorporated company of Wisconsin. I know nothing in reference to its reliability. Would refer you to Dr. Walter Kempster, Commissioner of Health, Milwaukee, Wis., for information in regard to same. Yours very truly,

HENRY CASSON, Secretary of State.

The examination blank referred to in the first letter includes thirty-seven questions. Thirty-five dollars and a rudimentary knowledge of the purpose of a cathartic seem to be about the only requirements for an M.D. degree from this enterprising institution.

History repeats itself but with less frequency in this direction than formerly, and the evil resulting from this reckless distribution of diplomas is largely nullified because in thirty-five States and three Territories these diplomas no longer constitute a license to practice medicine.¹

In 1888 the United States was almost the only civilized country in the world that did not as a rule protect its citizens from the imposition of quacks. Many

of our distinguished physicians and surgeons were known and honored abroad, but the genius of the few could not atone for the incompetency of the many; in the absence of proper restrictions it was impossible for the American medical profession to attain a position of eminence.

Since 1888, when my testimony was desired by the German courts, how great the change! At that time only five States in the Union exacted an examination for license to practice medicine, and the laws in those States were crude, imperfect and for the most part inoperative.

A licensing examination is now required in twenty-two States. Indeed, if we count Texas, where laws conflict, the roll includes twenty-three.

In 1893 the Massachusetts Legislature passed an act requiring plumbers to be examined for license. After this the practice of medicine could not long remain unrestricted, and as a matter of course the law of 1894 followed.

At the present time there are laws to regulate medical practice in all States except New Hampshire. In this State not even registration is required.

Though Harvard shares with Johns Hopkins² the honor of first requiring college graduation as the preliminary education for M.D. degrees, we have long been forced to recognize on the part of New England lawmakers a singular indifference to provisions restricting the practice of medicine.

In "Customs and Fashions in Old New England" Alice Morse Earle tells us that in "1631, one Nicholas Knapp was fined and whipped for pretending 'to cure the scurvey by a water of noe worth nor value which he sold at a very deare rate.'" One is almost tempted to suspect that this whipping took as much out of the New England lawmakers as it did out of Mr. Nicholas Knapp, for since that remote date scarcely a rumor has reached us of any equally vigorous remonstrance with unqualified practitioners.

As a result New England has been a specially promising field for quacks, not many of whom were considerate enough to follow the example of the celebrated "rain water doctor." Of this worthy it is recorded that he "worked wondrous miracles and did a vast and lucrative business" till he opportunely ended his career by tumbling into a hogshod of his own medicine.

As already stated twenty-three States now require licensing examinations. Of these examinations, sixteen are before a single board; four before two boards, allopathic and homeopathic; three before three boards, allopathic, homeopathic and eclectic.³ In eleven States candidates for examination must be graduates of medical schools; in three of these eleven

¹ As I was about to leave Albany for Atlanta a letter reached me from Dr. Kempster stating that proceedings had already been instituted by the Attorney General of Wisconsin to revoke the charter of the Wisconsin Eclectic Medical College. He added that graduates of this institution were not permitted to register in Wisconsin. It seems impossible, however, to prevent the registration of worthless diplomas in those States whose laws require merely the presentation of any sort of a certificate of qualification to unqualified local officers.

² Recent action by the University of Michigan contemplates a similar requirement.

³ In Alabama each county has an examining board; in Texas and Florida each judicial district. Florida also has a general homeopathic board.

States they must have studied medicine four years; in two States they must have attended at least three courses of medical lectures, though a diploma is not required. One of these States, Minnesota, will require four courses but not a diploma after Jan. 1, 1899. In six States applicants must have a competent preliminary education, though the provision is indefinite except in the New York law.⁴ Montana requires of applicants graduating after July 1, 1898, four courses of six months each. In New York the increase from three to four courses of six months each takes effect Jan. 1, 1898, but does not apply to students matriculated before that date and graduated before 1902. In ten States the licensing examination is the only test of fitness for practice, plainly a much more unsafe standard than indorsement of diplomas from accredited schools without a licensing examination.

The laws of thirteen States and three Territories⁵ demand either approval of medical diploma or examination by State or other duly qualified boards.

Illinois, a type of this second class, has done much to elevate the standard of medical education in the United States.

This leaves only eight States and three Territories in which it is necessary merely to present the diploma or other certificate of qualification to unqualified local officers.

We do not contend that many State medical laws are satisfactory. Indeed with few exceptions they are far from perfect. But we do assert positively that the advance in this country since 1888 is without a parallel.

But I will not trespass on your patience by speaking more at length of State medical laws in general. It is my purpose briefly to call your attention to what has been done in New York since 1888.

The University of the State of New York, established in 1784, is one of our oldest institutions. It is not a teaching body but a State department and at the same time a federation of 640 institutions of higher and secondary education. Its administrative departments are five in number, Regents office, Examination, Extension, State library, State museum. Its objects, as defined in the University law, are "to encourage and promote higher education, to visit and inspect its several institutions and departments, to distribute, to or expend or administer for them such property and funds as the State may appropriate therefor or as the University may own or hold in trust or otherwise, and to perform such other duties as may be intrusted to it."

To the examination department, organized in 1889, are entrusted all examinations conducted by the regents, including preacademic, academic, extension, higher, professional and technical. These examinations require annually 1,500,000 question papers, which are printed in the department on our own presses, by our own employees.

In all examinations under the University, as fully set forth in the academic syllabus, "it is the aim to test as far as practicable the thought-power of candidates. Definitions, rules, principles and laws are of little value without a knowledge of their applications."

The system of alternative questions is in vogue; the question papers are framed along broad fundamental lines, and, if students are adequately prepared, the chance of failure is reduced to a minimum.

The excellent results achieved by these examinations are largely due to the sympathetic cooperation of teachers and professional men throughout the State. Intelligent criticisms and suggestions are earnestly requested and always meet with careful consideration.

Academic examinations in 73 branches are held by the regents of the University in January, March and June in about 500 New York secondary schools; at the summer schools in August, and at central points in September, for professional and technical students only. They are also given once a year in other States when expenses are provided.

The method of conducting regents' examinations was prescribed in 1864. Since 1870 all papers claimed by principals as meriting 75 per cent. have been re-examined at the regents' office. In 1895 259,932 academic papers alone, not including those written by professional students, were submitted to the department. Of this number 28,701 or 11 per cent. were rejected.

The phenomenal growth of these academic examinations under the revised system of 1891 is especially remarkable in view of the fact that they are purely voluntary and that the University discourages all tendencies to over-examination.

The regents were not required to certify to the preliminary education of those seeking admission to any professional study till 1882, when the court of appeals adopted a rule that all law students, unless college graduates, must pass certain regents' examinations. These requirements were raised in 1891, and again in 1894.

The acknowledged value of the law student examinations led in 1889 to a similar requirement for medical students. This law was amended in 1893, 1895 and 1896. The statute that took effect March 21, 1896, fixes as the minimum preliminary education for medical degrees a registered four year high school course following a completed eight year elementary course.

After January 1, 1897, all matriculants for medical degrees must either be graduates of at least a registered four year high school course, or pass equivalent regents' examinations.

The registry list in the regents' office is constantly revised to meet changes in courses of study, and is the source of information in response to inquiries from all parts of the globe. An idea of the extent of this work is shown by the fact that credentials in 20 different languages were received last year.

July 1, 1895, the new veterinary law took effect and August 1, 1895, the new dental law, fixing the same preliminary education standard as that for medicine. Students may be matriculated conditionally provided the conditions do not exceed more than one year's work, but all conditions must be made up before the beginning of the second annual course counted toward the degree.

We see therefore that graduation from a registered high school is now the accepted New York standard for admission to professional study. In medicine, dentistry and veterinary medicine there is no exception. Pending another revision of the rules of the court of appeals, however, a law student unable to offer a three year high school course or its equivalent, may meet the preliminary requirement for admission to the bar by passing examinations in specified studies representing only two years of academic work.

In 1895 16,612 answer papers were written by can-

⁴ The New York standard has just been adopted by the Pennsylvania board of medical examiners.

⁵ Including Indian Territory, though the Cherokee Nation requires a licensing examination.

didates seeking admission to professional study, a growth of 106 per cent. in two years. 68.9 per cent. of these papers were accepted as compared with 59 per cent. of those written at the schools.

Between 50 and 90 per cent. of these professional certificates are granted without regents' examinations on evidence of the requisite preliminary education. This proportion will doubtless increase under the new laws till it becomes at least 82.5 per cent. as in 1893.

Graduation from a registered four year high school course after the completion of eight years in an elementary school approximates the highest standard adopted by any country in the world for admission to the study of law or medicine, and is fully equal to the requirement of any other government for dental or veterinary students.

In Germany the matriculant must have passed the *Abiturientenexamen* after completing the course of nine years in a *Gymnasium*. This examination presupposes as much work as is usually covered at the close of the freshman year in a registered American college. Dentists and veterinary surgeons must have passed the examination at the close of seven years in a *Gymnasium* or *Realschule* (*Zeugnis der Reife für die 1 eines Gymn. oder einer Realschule*).

In Austro-Hungary, Russia and Switzerland the requirements for matriculation to medical study are on about the same plane. In France the degree of *Bachelier ès lettres* (equivalent to graduation from a full high school classical course) and additional examinations in physics, chemistry and the natural sciences are required. A similar standard is maintained in Italy (*Licenza liceale*), Spain and Cuba (*Bachillerato* and a supplementary examination). In England the minimum test, fixed by the program of the British medical council is comparatively low, though many English students have either passed a matriculation examination in arts or hold the B.A. degree. In the Canadian provinces also the varying requirements do not represent in any case more than the completion of a registered three year high school course. The minimum test prescribed by the Association of American Medical Colleges is still lower and only includes a little more than one year of academic work.

We now turn to the consideration of professional training and practice in New York.

Of her twelve medical schools, four adopted a four year graded course in 1894 and five in 1895 and 1896. For matriculants after January 1, 1898, four years' study of at least nine months each, including four satisfactory courses of at least six months each in four different calendar years must be required for degrees by all medical schools in New York State. This minimum standard for the degree of M.D. is equal to that prescribed in Austro-Hungary, France and Germany.

There are more medical schools in the United States alone than in countries whose total population is six times as great, and yet less than one dozen of these medical schools in the United States have endowments corresponding to those so lavishly made to other educational institutions or in any way proportioned to their needs.

Under these conditions we must expect to find often low requirements both for matriculation and for graduation where the public is not protected by statutes which establish minimum standards.

To Montana belong the honor of first requiring for

admission to the State licensing examination a diploma granted after four courses of at least six months each to take effect for all applicants graduating after July 1, 1896. As previously stated Minnesota will require four courses but not a diploma after Jan. 1, 1899. The Association of American Medical Colleges including sixty-three medical schools in the United States will push on this movement by its constitutional provision for a similar requirement for M.D. degrees in 1899 or thereafter, though contrary to the New York law, students of dentistry, veterinary medicine and pharmacy may be admitted to advanced standing. It seems safe to predict that within a few years the minimum standard, now prescribed by the laws of Montana and New York will be adopted by all reputable medical schools in the United States.

The New York dental and veterinary laws require for degrees three satisfactory courses in three different years. The three dental schools and the two veterinary schools meet this requirement.

Though three years' study of law is exacted for admission to the bar except of graduates of registered colleges, who may be admitted in two years, yet five of the seven New York law schools still confer the degree of bachelor of laws after two years' work.

It is rather singular that both in preliminary education and in term of professional study, dentistry, and veterinary medicine stand higher than law. Some action will probably be taken in 1896 to correct this anomaly.

It may be easily shown that high standards have proved beneficial to New York professional schools. Let us take medicine as an illustration. Since 1891 when the licensing law took effect the number of medical students in New York schools have increased from 3,321 to 3,756, the number of foreign students from 1,556 to 1,706. The property of New York medical schools shows an increase during this period of five years from \$2,764,530.22 to \$4,061,293.59, the annual receipts from \$397,969.72 to \$460,043.97.

The report of the examination department for 1894 contained a review of medical education in the United States and in foreign countries. In this report it was stated on the authority of Dr. Pepper that the University of Erlangen in Germany grants an M.D. degree after a three-year medical course. We were specially gratified to receive in October 1895 a strong denial of the statement from the dean of the faculty of medicine at Erlangen, showing conclusively how carefully American medical reports are now scanned abroad. Perhaps the Germans anticipate retaliation for the terms "American doctor" and "Philadelphia doctor."

In medicine, dentistry and veterinary medicine licensing examinations are now required by law. All applicants must meet the prescribed preliminary education standard and must hold either a diploma from some registered school or a license from some foreign country.

The New York law forbids the registration by the regents of any school outside the State whose minimum graduation standard is less than that fixed by law for New York schools.

The University is responsible only for the preliminary general education of law students. Examinations for admission to the bar were not uniform till the creation by the 1894 legislature of a State board of law examiners, consisting of three members to be appointed by the court of appeals.

Another important advance in 1894 was the ruling of the court of appeals and of the regents that only those were to be considered college or university graduates who had successfully completed a satisfactory course of not less than seven years in advance of grammar school studies. This ruling is in direct accord with the following provision in the University law:

"No individual, association or corporation not holding university or college degree-conferring powers by special charter from the legislature of this State or from the regents, shall confer any degrees, nor after Jan. 1, 1893, shall transact business under, or in any way assume the name university or college, till it shall have received from the regents under their seal written permission to use such name, and no such permission shall be granted by the regents, except on favorable report after personal inspection of the institution by an officer of the University."

As the veterinary and dental laws did not take effect until July and August, 1895, respectively, we can not yet report the results of the first year's work. These laws are modeled closely on the medical law, and practically the same rules and regulations have been adopted for their administration by the University.

During the four years in which the medical licensing examinations have been given 56, 267, 390 and 606 allopathic candidates have been examined 8, 21, 51 and 60 homeopathic, and 4, 7, 4 and 11 eclectic, making a total of 1,485, of which number 291, or nearly 20 per cent., were rejected.

In this summary each candidate who fails is counted as often as examined. Thirteen hundred different candidates have appeared before the three State medical boards during the four years ending Aug. 1, 1895, of which number 106, or more than 10 per cent., have failed to secure a license.

This result is remarkable when we consider that admission to the licensing examinations presupposes the preliminary education required by statute and graduation with the degree of bachelor or doctor of medicine from a registered medical school.

The work of men long out of school compares favorably with that of recent graduates:

	Per cent. licensed.		
	1893	1894	1895
Examined on graduation	91.8	91	90
Examined after 1 year's practice..	93.8	90	82
Examined after 2 years' practice..	83.4	87	85
Examined after from 3 to 33 years' practice	89.2	77	87

In 1895, failures were as follows in the several topics: Physiology and hygiene 19, surgery 36, anatomy 48; therapeutics, practice and materia medica 59, chemistry 62, pathology and diagnosis 65, obstetrics 67.

It is remarkable that old practitioners do better in physiology and hygiene, anatomy and chemistry than in obstetrics, or pathology and diagnosis. The statistics at all events show that in the only subjects for which some have demanded two standards, the old practitioners do not need a special dispensation.

We have now reviewed briefly the present status of preliminary education, professional training and practice in New York. To what has been said may be added a reference to the new law, by which no one may hereafter serve as a certified public accountant who does not hold a certificate of qualification from the University.

The attitude of New York toward professional

training and practice is of special importance. In her law schools are about 1,500 students, or one quarter of the number in attendance on all law schools in the United States. In her medical schools are nearly 4,000 students, or one-fifth the total for the entire country. In other professions she is equally prominent.

From this brief statement of facts I hope you have gained clearer ideas of the progress New York has made in preliminary education, professional training and practice, especially since 1889, the date of the first law requiring a preliminary education for medical degrees.

ORIGINAL ARTICLES.

TREATMENT OF CANCER OF THE RECTUM.

Read by Title in the Section on Surgery and Anatomy at the Forty-seventh Annual Meeting of the American Medical Association, at Atlanta, Ga., May 5-8, 1896.

BY LEWIS H. ADLER, M.D.

Professor of diseases of the Rectum, Philadelphia Polyclinic and Post-Graduate College; Surgeon to the Charity Hospital and to the out-patient Department of the Episcopal Hospital. PHILADELPHIA, PA.

The question of what surgical procedure is justifiable in any given case of cancer of the rectum is frequently hard to decide, especially from the standpoint of relieving the patient the most with the incurrence of the minimum risk.

The recognized operations are four in number: Extirpation, colotomy, posterior linear proctotomy and curettage.

Extirpation.—The ideal method of treating cancer of the rectum would be by extirpation, as is done in cases of the same disease when the mammary gland is the seat of trouble; but unfortunately it is not often that the rectal neoplasm is discovered in time to permit the entire removal of the growth and of all glandular involvement; consequently, it is my belief, that the cases in which this operation is indicated will always be confined to a relatively small number.

Colotomy.—On the other hand, colotomy is quite practicable in a large number of instances and the benefits derived from its performance are thus minutely described by Dr. Chas. B. Kelsey (*New York Medical Journal* for November, 1892): "It relieves pain; does away with the constant tenesmus and discharges from the rectum, which by their exhausting effects are the immediate cause of death; delays the development of the disease by preventing the straining and congestion of defecation; prevents absolutely the complication of intestinal obstruction, which is another cause of death; enables the patient to sleep, eat and gain flesh, and often makes him think himself cured in spite of the plainest prognosis to the contrary. Instead of passing his days and nights upon the commode, wearing out his life in his effort to free the bowel from its irritation, he has one or perhaps two solid fecal evacuations from the groin in twenty-four hours." The foregoing description of the benefits derived from a colotomy is no exaggeration. It is the operation to which I would cheerfully submit were I a sufferer from cancer of the rectum which had reached the stage of operative interference. In this connection I would cite the following case, which I consider a typical one for the operation of inguinal colotomy: T. J. P., male, American, aged 52, clerk by occupation, first consulted me in 1893. At that time his history was as follows: Parents dead,