

## Editorial.

### ART. VII.—*Medical Education.*

The elevation of the standard of medical education has for some years attracted a great and increasing amount of attention in this country, and while there has been a profusion of plans recommended for accomplishing this end, the difficulties in the way of introducing the necessary changes in the time-honored course of instruction, and the fact that the professors of the institutions imparting instruction are interested in maintaining an easy standard of acquirements necessary for graduation, have up to the present been insuperable obstacles in the way of the needed improvement. In European countries, with which our intercourse is daily becoming more free and constant, the course of medical study and the requisites for a license to practice are so far in advance of our own, that a vast improvement is necessary with us if we are to assume any sort of respectable position in comparison with them. In fact, we have become accustomed to look to Europe for all the advances that are now so rapidly taking place in every branch of medical knowledge, but it is time for us, if we have any love for the good name of our country in this and kindred scientific matters, to make an effort to place her in a more honorable position. It is true, we believe, that certain German Universities have issued licenses to practice in this country to such of their students as desired to emigrate and practice here, but were not able to pass the examinations necessary to entitle them to obtain a license for practising there; which, although disgraceful to those institutions, yet shows the low estimate they place upon the respectability and acquirements of medical men here. Unfortunately, taking the whole body of our medical practitioners, regular and irregular, this estimate would not be far from the truth. The regular practitioners are the chief

parties responsible for the swarm of quacks that surround and infest them. They make no effort to improve or arrest the course of those medical colleges in our country that grant their diplomas to persons so utterly unqualified to practice, or even to study medicine, that the issuing of the diploma is little better than the licensing of quackery; and the public, not so blind and stupid an animal as we are apt to suppose it, seeing so little difference between the licensed and the unlicensed, patronizes which it pleases, without regard to our feelings. If regular physicians were as thoroughly educated as they ought to be, they would always command from the public all the deference they could lay claim to, and there would be a much wider gulf than now exists between themselves and quackery, which would not then have the strength, the effrontery, and the success which at present characterize it. But as long as the professors of medical colleges are directly and pecuniarily interested in increasing the number of graduates, without due regard to their fitness to practice, so long will the uneducated, with others utterly incompetent, succeed in getting diplomas, which, in consequence of the ease with which they are obtained, are of little more value than those dispensed C. O. D. by a certain Philadelphian institution. The body that issues the certificate of competence and license to practice, ought to be entirely independent of the body that teaches and prepares the candidate for graduation. The diploma of such a body as the former would be far more valuable than one issued by the latter.

In European Universities, the course of medical study extends over a length of time varying in different countries from four to seven years—and these are years of actual work. Taking out the periods of vacation, the time devoted to study is from forty to fifty months, and this under the teachings of the ablest men in the profession, who are liberally supplied with every requisite for instructing by demonstrations, experiments and clinics. In this country, the student is usually called upon to attend only eight months of lectures, and nominally to study for three years before he can obtain a diploma. Of the teachers, it is enough to



say that they are worthy of their students. And if the collateral educational acquirements demanded of students are taken into account, the exhibit is still worse. In Europe, satisfactory evidence is always required that the candidate for graduation has had a first-rate preliminary literary and scientific education. The subjects upon which he must furnish proofs of proficiency are usually the Greek, Latin and French languages, *belles-lettres*, philosophy, ancient and modern history, ancient and modern geography, mathematics, physics, chemistry and botany. Other kindred branches of study must also have been pursued, differing in different countries. Compare this with the requisites for graduation in the great majority of American Colleges. How many obtain a degree of M. D. who cannot write or speak even their own language grammatically, and to whom all foreign languages, and even all branches of science, are as a sealed book; who step from the plough, the anvil, or the cobbler's bench into the lecture-room, and after eight short months of chaotic study (!) are M. DD., though unable to write in full the words for which these letters stand, or to know what they mean. Such cases are common. There are very many far worse. Testimony taken before a committee appointed by the Pennsylvania Legislature to investigate the almost public sale of medical diplomas in Philadelphia, shows abundantly that these documents were sold for whatever the sellers could get, even as little as twenty-five dollars, to any one who desired to purchase; no examination being necessary. It has even been shown that diplomas were conferred as a political consideration upon men whose votes were desired by some of the professors signing them. Diplomas in blank were peddled about, and a witness before the committee testified that he had been told by the possessor of one of these valuable instruments, that "it was all foolishness for a man to waste his time studying." Are not the "second-class" licenses of the German institutions above referred to far more valuable than many of ours? Taking into account the known prerequisites for medical study and the strictness of the examinations in Europe as compared with the laxity on both

these points that prevails in even our best medical colleges, are these German licenses so far below our best? It is disgraceful that we have even to consider such a question.

The report of the committee of the American Medical Association on Medical Education, presented at its last meeting in this city, and referred to the Committee of Publication, presents some excellent recommendations on this subject, and it is to be hoped, though not expected, that they will meet with general adoption. They advise "that no one should be allowed to enter upon the study of medicine, or having thus entered, with a view to graduation, to matriculate in any medical college, who cannot furnish satisfactory testimonials of his knowledge of the grammatical construction of his own language, with the rules of English composition, a fair acquaintance with English literature, with geography, history (ancient and modern), with arithmetic, algebra, and elementary geometry; to which should be added moral science, elementary chemistry, elementary physics, and a sufficient acquaintance with Latin to construe at sight a passage from some classical author; with the proviso, nevertheless, that in the event of any deficiency upon these points, such deficiency should be made good during the first semester of the curriculum, to be ascertained by examination by the Faculty at the termination of that division of the course." This is certainly the lowest scale of acquirements that should be admitted in any one about to enter upon the study of medicine; and to these ought to be added a knowledge of French or German, or both. The following resolution was also adopted by the Association, viz.: "*Resolved*, That each State and Local Medical Society be requested to provide, as a permanent part of its organization, a Board of Censors for determining the educational qualifications of such young men as propose to commence the study of medicine, and that no member of such societies be permitted to receive a student into his office until such student presents a certificate of proper preliminary education from the Censor's Committee appointed for that purpose, or a degree from some literary College of known good standing."

The above committee also recommend a radical change in the method of study of the various branches of medicine



and surgery, proposing a plan somewhat like that pursued in literary colleges and academies. According to this the term is extended to four years, of which the earlier portion is to be devoted to the elementary or fundamental branches, leaving to the latter portion the practical branches and clinical instruction. The schedule proposed by them is as follows:

### I. FRESHMAN CLASS.

#### 1. Semester:

1. Anatomy, Special and Comparative.
2. Elementary Zoology and Comparative Anatomy, the first only as a prelude to the second.
3. Physics and Chemistry of inorganic bodies.

#### 2. Semester:

1. Normal Histology and Physiology.
2. Organic Chemistry in its relations with Physiology.
3. Materia Medica and Pharmacology.

### II. SOPHOMORE CLASS.

#### 1. Semester:

1. Anatomy, continued.
2. Physiology.
3. General Pathology and Pathological Anatomy, and Pathological Histology.
4. Organic Chemistry in its relation with Pathology and Pathological Products.

#### 2. Semester:

1. Materia Medica and Pharmacology, continued.
2. Hygiene and Medical Police.

### III. JUNIOR CLASS.

#### 1. Semester:

1. General Pathology, etc., continued.
2. Anatomy, continued.
3. Special Pathology and Therapeutics.
4. Surgical Pathology and Operative Surgery.
5. Obstetrics and Gynecology.

#### 2. Semester:

1. Special Pathology and Therapeutics, continued.
2. Surgery, continued.
3. Obstetrics, etc., continued.
4. Medical, Surgical, and Obstetrical Clinics.

### IV. SENIOR CLASS.

#### 1. Semester:

1. Special Pathology and Therapeutics.
2. Surgery, continued.

3. Obstetrics, etc., continued.
4. Clinics, as above.
2. Semester:
  1. Clinics, as above.
  2. Psychological Pathology and Mental Diseases.
  3. Medical Jurisprudence and Toxicology.
  4. Special Pathology and Therapeutics.
  5. Operative Surgery and Bandages.

With regard to the advancement of the student from a lower class to a higher one, it is proposed that this should be conditional upon his passing a thorough examination upon the subjects studied during the year; and it is recommended that there should be a minor examination at the end of the first semester of each year. In all European Universities the examinations are a prominent and very important feature in the course of study, and entirely a different matter from the almost farcical quizzes that are usual in our own institutions. We quote the words of the report of the Committee on Medical Education before referred to: "When compared with the arrangements and the accompanying facts detailed in the preceding remarks, no rational and unprejudiced mind can fail to see that the course pursued in the American colleges is but little better than an idle, degrading formality; a cheat upon the people, and a degradation to the profession." And this disgraceful condition of affairs may be expected to continue as long as *teaching* institutions are authorized to issue to their graduates diplomas that are also licenses to practice.

A ray of light is beginning to struggle through the clouds that have heretofore obscured the cause of medical education in the United States. The medical school of Harvard University, has recently adopted a new plan of instruction, which is closely similar to that proposed by the committee of the American Medical Association, although the published requirements for a degree make no mention of preliminary education, merely recommending that college students intending to study medicine pay special attention to the study of natural history, chemistry, physics, and the French and German languages, while in college. These requirements only include *three* full years of the study of



medicine; but these are years of study upon a plan, and to an extent unprecedented in this country. According to this plan, instruction is given by lectures, recitations, clinical teachings, and practical exercises, uniformly distributed throughout the academic year. This year extends from the Thursday following the last Wednesday in September to, and including, the last Wednesday in June, and there are during its continuance two recesses, of one week each. The course of instruction has been greatly enlarged, as well as extended in time, and arranged to carry the student progressively from the elementary to the practical subjects. Laboratory work, in the departments of anatomy, physiology, chemistry, and pathological anatomy, takes the place of, or is added to, the usual mode of teaching by lectures, and is insisted upon as much as attendance on lectures, each student having his place and time in the various laboratories, and in the microscope room. A series of thorough examinations has been arranged, extending over the whole period of study, and including all the main subjects of instruction. Students, other than the regular students, may pass these examinations all at once at the end of their course, or at several successive times. But every candidate for the degree must pass a satisfactory examination in every one of the principal departments of instruction at some time during his period of study. We hail the inception of the new plan by Harvard as an indication of vast promise, and would wish to see all other schools for medical instruction in this country adopt it, or something similar, either voluntarily, or through compulsion of future laws upon the subject. It is eminently one fitted for regulation by wise laws, and there is some reason to believe that the public has been so overdone by quackery, both licensed and unlicensed, as to call for and endorse such laws. In the New York Legislature, a bill has been recently introduced, providing for a Board of Examiners for the State University, who are to examine all applicants for the degree of M.D.—the examinations being in writing. The requirements are that the candidates must be over twenty-one years of age, of good moral character, and must furnish sat-

isfactory proofs that he or she has a competent knowledge of the Latin language, of the German or French language, of Greek grammar, and of the various branches of education taught in the normal schools of that State: the Board of Regents of the University to issue their diploma of M.D. to the successful candidates. The bill is stated to be very likely to pass. In the Legislature of this State a bill is now pending to regulate the practice of pharmacy, and meets with much favor; and it seems very probable that it will become a law. If our legislators are ready to regulate this subject, they ought to see the propriety of taking a step similar to that pending before the New York Legislature, the two subjects being cognate, but the proper regulation of the practice of medicine being of far greater importance than that of the practice of pharmacy. If none but thoroughly educated physicians were allowed to practice medicine and surgery, medical colleges would *ex-necessitate rei* quickly conform to the new requirements, and give complete courses of instruction.

Among the first results of insisting upon complete preliminary education in those about to study medicine would be a very great diminution in the number of students. The weak and incompetent medical colleges would go to the wall and cease to exist for want of nutritive pabulum; but the well organized and strong would grow stronger and do better work. The best institutions always attract the best students. To have a large proportion of incompetent students is a public confession of incompetent teachers. Now medicine is a compound science, made up of some of the others, and interlocked on all sides with them. Instruction in medicine includes and necessitates instruction in various of the sciences, and it would therefore seem proper that it should be imparted in the same institutions in which all the others are taught. There has grown up in this country a grand system of State Universities, an honor alike to the country and the times, and medical teaching ought not to be omitted from the subjects undertaken by them. A medical college which forms part of a great University will be able to exact the highest standard of preliminary education



from its students, ought to give them the best possible instruction, and send them out prepared to stand successfully a most rigorous and comprehensive examination. The guarantee of respectability which comes from such a connection would attract many to the profession who now turn away from it in disgust at the charlatanry that distinguishes so many of the teachers in our medical colleges; for it is to be presumed that the governing bodies of the Universities would exercise due care and discrimination in the selection of incumbents for the various chairs. If the University of the State of California had a well organized medical department, there can be little doubt that it would very quickly become the leading institution of the kind on the Pacific coast; and in fact it is to be hoped that it would be the only one, if it succeeded in attracting the best educated young men for students, and gave them the highest character of instruction.

With reference to the organization of a separate Board of Examiners, whose certificate of competency shall be the only license to practice medicine, it would apparently be very difficult to carry out this idea in practice; for the actual working of such a plan, either some general law would have to be passed by Congress, which is little to be anticipated; or else all the States would have to pass similar laws—quite a chimerical idea. At the meeting of the American Medical Association held in New Orleans in May, 1869, the following resolutions upon this subject were adopted, viz.: "*Resolved*, That this Association earnestly request each State Medical Society to appoint annually one or more Boards of Examiners, composed of five thoroughly competent members, whose duty it shall be to meet, at suitable times and places, for the examination of all persons, whether graduates of colleges or not, who propose to enter upon the practice of medicine in their respective States, except such as have been previously examined and licensed by a similar Board in some other State." \* \* \* \* \* "*Resolved*, That each State Medical Society be requested to require its Examining Board, or Boards, to exact of every applicant for examination adequate proof that he has a proper general education, is twenty-one years of age, and has pursued the study of medicine three full years, one half of which time shall have been in some regularly organ-

ized medical college, whose curriculum embraces adequate facilities for didactic, demonstrative, and hospital clinical instruction." A subsequent resolution provides that those who seek to enter upon the practice of medicine without receiving a license from the State Board of Examiners, shall be treated ethically as irregular practitioners. This plan would only half do the work, and the irregular practitioners would be in so great a majority as to be able to set the regulars at defiance. Probably the best that could be done in the matter at present would be to induce the Legislatures of the various States to pass some such law as that contained in the bill now pending before the New York Legislature, and in course of time to extend the operation of the law so as to include all new comers, even those possessing a degree of M.D., who do not already hold a certificate from some other State Examining Board, *completely dissociated from any didactic institution.*

In conclusion, we shall quote again from the report of the committee of the American Medical Association on Medical Education: "To secure the results here referred to, it is strenuously urged upon the Association, in its corporate capacity, to send a strong memorial to all the State governments, earnestly appealing to them to provide for a uniform system of legislation, as regards the vital interests of the medical profession; to establish, as near as possible, a uniform system of medical education; to impose wholesome restrictions upon quackery under every form and device; and if there be those, as doubtless there ever will be, who are base enough to wish to impose upon the ignorant or the credulous, under the specious name of a *new system* of medicine, whether it be Homœopathy, Thompsonianism, Eclecticism, Animal Magnetism, Needle Cure, Lifting Cure, or Water Cure, to require these, *et omnes alii similes*, as is done in Prussia and Austria, to be thoroughly educated in scientific medicine, which done, they would be comparatively harmless; to no longer legalize a diploma from a college as a license to practice medicine in any of its branches; and, finally, to organize in each State, a competent Central Medical Board of Examiners, to be paid by the State, before which, as in the Army and Navy Boards, all, regardless of



where they may have graduated, shall be required to undergo a thorough and satisfactory examination before they can be permitted to practice the profession in any of its branches. Should this plan be objected to, it is then proposed that a similar board should be appointed, to be present at the *pass* examinations by the faculty, with the privilege of participating in the same, should they find reason to thus interfere." We would only add that the members composing such a Central Medical Board of Examiners, ought to be elected by the County Medical Societies, as the only method of keeping politics and political doctors out of the Board.

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