REPORT OF THE COMMITTE ON

MEDICAL EDUCATION,

MADE TO

The Medical Society of the State of California,

By Jos. F. MONTGOMERY, M. D., Chairman,

Extracted from the Transactions of the Medical Society of the State of California, for the year 1876.

SACRAMENTO:
SACRAMENTO LEADER PRINTING OFFICE.
1876.

REPORT OF THE COMMITTEE ON

MEDICAL EDUCATION,

MADE TO

The Medical Society of the State of California,

At the Annual Session, Held at San Francisco, April, 1876,

By Jos. F. MONTGOMERY, M. D., of Sacramento,

Member of the California State Board of Health, and of The American Medical Association; Member, and one of its Board of Examiners, of the Medical Society of the State of California; Member and Ex-President of the Sacramento Society for Medical Improvement; Ex-President of the Sacramento City Board of Health, Etc.

Extracted from the Transactions of the Medical Society of the State of California, for the year 1876.

SACRAMENTO:
SACRAMENTO LEADER PRINTING OFFICE.
1876.

REPORT OF THE

COMMITTEE ON MEDICAL EDUCATION.

BY JOS. F. MONTGOMERY, M. D., OF SACRAMENTO, CHAIRMAN.

At the fifth annual meeting of the Medical Society of the State of California, since its reorganization, convened in the city of Sacramento, April 21, 1875, the Committee on Medical Education, appointed for the ensuing year, was composed of the following members, viz: Jos. F. MONTGOMERY, Sacramento, Chairman; F. W. HATCH, Sr., M. D., Sacramento; H. H. TOLAND, M. D., San Francisco; T. H. PINKERTON, M. D., Oakland; ASA CLARK, M. D., Stockton.

The four last named gentlemen were all written to by the Chairman, and requested to contribute to the preparation of the Annual Report, but none of them responded.

The duty has therefore devolved upon him to undertake the work unaided, and as the result of his labors he begs leave respectfully to offer the following report:

So much has been written and published from time to time within the last thirty years, on the subject of medical education, and so many able and exhaustive reports on the same interesting and important theme have been prepared and presented by committees of State Medical Societies and of the American Medical Association, and which appeared in their respective Transactions, that it would be out of place, now, to offer to this Society a detailed account of the discussions and controversies that have been indulged in; of the changes that have been made in the character and the curriculum of the medical schools, whether for good or ill, here or elsewhere, or to present a very full comparison of the systems of instruction generally prevailing in such institutions in this country and with other civilized nations.

But we must not be indifferent observers of the conflict long pending and still existing on a subject that affects us so vitally as a profession, and in which the well-being of the public is so profoundly involved. It is a conflict, in a great measure, between truth and error, between generous, enlightened philanthrophy and sordid, sharp-witted selfishness. Or, at best, the result must determine whether we shall have learned, accomplished, skillful physicians, who would command public confidence and respect, and satisfy the demand for medical council and assistance; or whether we shall have imposed upon us ignorant, unrefined and blundering practitioners, who would disgust their patrons, destroy the confidence of such in the regular profession, and drive them, as is now being the case in many instances and apparently in a steadily increasing degree, to the artful, specious disciple of Hahnemann, or to the follower of some other pretended new system of the healing art.

Although it is discouraging that so little comparatively has been accomplished in this country by the labors expended in behalf of the general reformation and improvement of the profession, and the elevation of the standard of medical education, it will never do to give up in despair, and to surrender the field to those who dishonor their calling by entertaining low views in relation to professional learning and ethics, and who are, many of them, really inclined to virtual empiricism or arrant charlatanry. Rather should the true and courageous advocates of a great cause become the more determined and resolute in the face of disappointment and difficulty, and be inspired to redouble their efforts in such behalf. To be incited to this course, and to realize the need of it, let them but remember that not only the dignity and future usefulness of a noble profession depend upon their continued and stronger exertions, but also the health and, more or less, the very life of individuals, of communities, and of nations; for our mission is to conserve, to the extent of our ability, the health, the life and the general well-being of the entire human race. An antagonism unfortunately exists here between individual physicians, between the medical schools, and between the members of the medical societies and associations, on this vital subject of medical education, and we should all promptly and boldly take sides in a contest so urgent and momentous. The issue is well made up—one side,as you are aware,favoring a decided elevation of the standard of education, both preparatory or literary and professional, urging considerable addition, to the former or existing curriculum of studies, and insisting upon thoroughness in teaching and

and learning in every department; while the other opposes the exaction of any preliminary education or examination, and favors generally a low standard of professional requirements for the doctorate, at a small cost to the student. We unhesitatingly and decidedly take our stand with the first, that favoring progression and the successive elevation of the standard of education until it shall have attained the highest degree of comprehensiveness and thoroughness that may seem at all desirable or really of any practical utility.

The greatest difficulty the profession has had to contend with, and which still confronts it, and the most formidable hindrance to its intellectual and moral worth, and to the steady advancement of scientific learning in its schools and among its members, has arisen from the establishment of an inferior order of medical colleges by unworthy or misguided men, who are and have been willing, apparently, to prostitute and degrade their calling for gain, by offering cheap but poor instruction, and granting diplomas to large numbers of persons devoid of the mental or educational qualifications to fit them for the delicate and responsible duties devolving upon the medical practitioner, to the sore reproach and detriment of the entire fraternity.

To cure this crying evil, and to purify and elevate the profession, the American Medical Association was instituted in 1847. The purpose of those who conceived and carried into effect that grand enterprise was eminently pure and noble; and for their wise foresight in projecting and their judicious action in organizing that potent and beneficent instrumentality, which has proved by its sound instruction and its admirable ethical laws such a blessing and rallying point to all true-minded members of the profession everywhere, they should ever be esteemed and honored, and their names be rendered illustrious in the annals of medicine.

The Association has, indeed, accomplished much, by bringing the profession together from every quarter of the country; by inspiring among them a spirit of emulation; by encouraging habits of more careful observation and wider research; by inducing the production of many able and valuable papers on the nature and treatment of the diseases prevailing in different sections of the land, and especially by engendering a true and real *esprit de corps* among its members. It has also achieved much in the line of the chief purpose of its original institution—the elevation of the standard of medical education, through the agency of its numerous exhaustive reports, and its wise and earnest recommendations, favoring that grand aim. We have had this illus-

trated in the advanced changes made towards that end by many of our best and most distinguished schools; for as the professors of those institutions are generally members of the Association, it is reasonable to infer that their mingling and conferring together at its meetings exerted a happy influence upon all of them, and had much to do with their action in elevating the grade of education within their respective spheres of labor. We should not, however, at the same time, withhold any credit due personally to those gentlemen as individuals, or in their character as members of Faculties, for whatever they may have done in the direction indicated. Here we have a reliable verification of the influence and effect of its moral power.

But in the meantime, the advocates of an imperfect education, recreant members of the profession, have been industriously at work, as heretofore intimated, in establishing poor schools; in attracting to them crowds of comparatively ignorant students through the tempting inducement held out of a short and easy course of instruction for only trifling compensation in return, and then in granting indiscriminately, in exchange for money as in any other traffic, diplomas that confer upon their holders all the rights and privileges appertaining to the vocation of medicine. But for such base and notorious proceedings, so calculated to cast more or less suspicion and distrust upon all bearing the title of physician, added to lesser faults in other directions, our profession should serve as a sure passport to social position and to the respect and confidence of the afflicted, while its votaries would probably be readily accorded, without a resort to chicanery or other unworthy means, ample remuneration for their professional services.

The case or example here presented, though true, is an extreme one; but there are many other establishments of defective character, varying and ranging in degree all the way up from this worst of the brood to the lowest grade of medical school that is recognized by the highest class of our medical universities and colleges, and whose graduates are accepted by the more enlightened and discriminating portion of the public.

Notwithstanding what the Association has effected, as claimed for it, in its noble efforts to promote the cause of thorough education, many of its ablest and most zealous members are greatly tried and discouraged because it has accomplished no more in that behalf; and they attribute its short-comings in that respect in a great measure to the fact that many of the teachers and graduates of these inferior schools have gained admission into its body, and have there interposed every impediment

in their power to the success of any scheme or measure having in view a radical change in the existing faulty system of instruction, and any material addition to the curriculum of studies, either academic or professional, designed to be adopted by all, and to be satisfactorily passed through by every candidate as an imperative pre-requisite to his gaining what would then unquestionably be the honorable degree of Doctor of Medicine. Under these circumstances it is clearly the duty of every State Medical Society, and of every local society, to lend a helping hand, to the extent of their ability, in this vital struggle, and to offer every encouragement to their distinguished brothers who are bravely striving for the supremacy of truth, of right, and of science, to subserve the dignity and honor of the profession, and to protect the life, preserve the health, and promote the general well-being of the people at large.

In this important work the Association has been assisted by its better and more prominent members, particularly by its Presidents, including our lamented Logan, but, we regret to say, two of its presiding officers, one in 1872 and the other in 1875, both, noticeably, residents of the same State, have thrown the weight of their talents and official position on the side of the obstructionists, to the great damage of the righteous cause that we esteem above all others affecting us. This gross betrayal of a sacred trust should not be meekly tolerated and passively submitted to; but the Association should, in all such cases, express itself in the most decided terms of disapprobation and condemnation, and signally rebuke all, however exalted in station, who may dare to insult the well-understood sentiments of its loyal members, and rebel thus openly against the avowed objects and purposes of its original organization, and the declaration of its principles and policy, oft repeated, enunciated by its chosen committees to whom the special subject of medical education has been confided for consideration and recommendation. We cannot afford to trifle or compromise with error, in whatever guise, where so much is at stake; and no individual guilty of a grave wrong should be exempt from the severest chastisement, or even the direst disgrace if necessary, to subserve the interests of a noble cause or a great people. One of these addresses just alluded to, the one delivered in 1872, was most thoroughly and triumphantly answered in a paper of rare merit, in both diction and argument, read before this Society in October of that year, by our able and accomplished medico-legal friend, Dr. E. R. Taylor. Of this contribution to the cause of sound and thorough learning we have a right

to be abundantly proud, and for it the author is richly entitled to an unanimous vote of thanks.

A large majority of the honorable members of the profession everywhere agree, we believe, as to the necessity for reform and a very high standard of education, coupled with thorough practical training, but the difficulty is to secure perfect harmony of views, earnest co-operation, and cordial concert of action on the part of the Association, the medical societies and the respectable schools of the country. The Association being a national representative body, to which the societies and the schools should in a great measure defer, particularly as all of them may be well represented therein, should be looked to for the initiative and quasi-authoritative step in the important work contemplated, and all others should cheerfully strengthen and sustain it by their earnest words of counsel and encouragement.

It should, therefore, at its approaching session, no longer doubting or hesitating as to its duty, boldly and confidently prepare and promulgate a system of education contemplating or prescribing the highest standard and the most enlarged curriculum that in its judgment may be deemed wise or desirable for the general adoption of the schools, with the unequivocal and emphatic declaration at the same time that no teacher or graduate of any school not accepting or adopting it should be admitted into its sacred and exclusive fold. Let it but do this and we have the abiding conviction that the great mass of the profession would enthusiastically rally to its support, and that the schools, one after another, would fall into line, as would, under like stress or incentive, the intrepid defenders of a holy faith.

Some may regard these propositions and predictions as impracticable and visionary; but if they be so to some extent, it should be remembered that if we would accomplish anything of special note—would achieve any great reformation, or attain any grand and beneficent end, we must prescribe for ourselves exalted aims, and engage in the work laid out with a fervid zeal and an untiring energy. If we aim at little in this important undertaking, or faint by the wayside, we shall accomplish far less than hoped for, and be compelled to plod on under the same unsatisfactory and vexatious condition of things we have been so much deploring.

To awaken general interest with the profession and to concentrate effort, the Association should issue an address to all medical schools and State Medical Societies in the Union, as well as to local medical socie-

ties and prominent members of the fraternity in every State, urging co-operation in the important work, and advising the formation of State Societies where none may at present exist, that such concerted action may be utilized as far as practicable in accomplishing the end aimed at. To this extent the moral influence of the Association would be exerted, and would do good by exciting general interest and inducing the needful co-operation.

But inasmuch as such efforts have thus far been inadequate to effect the improvement intended, the strong arm of the law must be invoked to compel and perpetuate the reform deemed so indispensable. To secure this potent agency, which has operated so happily in European countries having strong governments, it should memorialize the State Legislatures in all the States, entreating all such legislative departments, in the interest of the people, not of the profession, not only not to grant any more charters for medical schools, but to repeal or revoke many already granted, to the end that the special evil in question shall be abated as far as possible. It should also ask for a remodeling of all existing charters, prescribing in the amended form the amount and character of the preliminary education to be exacted to allow admission into the schools, and setting forth, in clear terms, the curriculum of studies to be adopted by them; the number and length of the sessions or semesters into which the entire term shall be divided, and the time to be devoted to each subject and the order and manner in which it shall be dealt with. In short, the entire system of education required to be conformed to, before the honor of the doctorate shall be conferred, should, in all its essential details, be prescribed by law, and suitable and effective penalties be provided and rigidly enforced for any violation of the terms and conditions of such amended charters. Without this action, brought about by the united appeal and zealous co-operation of all true medical men everywhere, whether in Faculties, in Societies, or in the Association, no absolute reform need be hoped for or anticipated. That is the opinion of many able men in our ranks, as we have gathered from their writings; and neither the Association, nor any respectable school or society anywhere, seems to cherish any hope or expectation of realizing any substantial benefit by further reliance upon mere moral suasion, and an appeal to the pride and professional spirit of the profession at large. There are, unfortunately, too many in the ranks, or engaged in teaching, who lack the genuine *esprit de corps* so highly prized and sedulously cultivated by the nobler and more honorable members, and who are too selfish, or

too indifferent to the real wants of the country in this particular, to heed or respond to such appeals. Tufts or clods alone will not avail with these, and solid stones only, dealing hard and stunning blows, can be relied on to bring such incorrigible recusants to their senses.

It is undeniable that we have too many schools of medicine authorized to grant diplomas, and the consequence is that the profession is overcrowded in every portion of the country with notorious incompetents. It is only necessary to state these patent facts to challenge their acceptance as true by all who are even moderately well-informed on the subject, and hence the necessity for the incisive, sweeping remedy demanded.

To know how we stand relatively with our brethren in some of the more enlightened countries of Europe, and to learn our duty to ourselves, it is sufficient to compare the systems of education as existing there and here, and to cite the laws enacted in the two regions, designed to regulate the practice of medicine, and to protect the public and the profession against every species of imposition and injustice.

In France, Austria, Prussia and Italy, where the systems and the curriculum of studies are very similar, the terms of study continue from four to six full years, or ten months in each year, divided into two sessions or semesters of five months each, the curriculum embracing from fifteen to twenty-five different subjects and requiring from twenty to thirty-five full professors, besides assistant professors or other subordinate teachers, numbering, altogether, in some institutions, about one hundred persons. All these medical institutions require a liberal preliminary education, attested by certificates from literary or scientific schools of repute at which the applicants may have been educated, and, in all, the most rigid and exacting rules are enforced, that the prescribed requirements shall be fully and faithfully complied with—no evasion, or shirking, or partial compliance, under any pretext whatever, being allowed or tolerated. They also have schools of pharmacy connected with the regular medical schools, which, under their requirements, must be attended a certain time.

In all their schools clinical and practical teaching, most thorough, in the different departments of medicine, is conducted by able and competent men; and besides the hospitals on an extensive scale, with several divisions for all important classes of disease, and the numerous beds and other superior facilities for a number of distinct classes, the collections, museums, libraries, laboratories, botanical gardens, etc., constitute a remarkable array of material aids And every student is required

to attend regularly upon hospital instruction and to avail himself of all the other aids enumerated. He is also subjected at stated intervals to the most searching examinations, to test his fidelity and measure his knowledge, that there may be no opportunity for lagging or evading any exaction. And after the final examination and the granting of the diploma by any particular institution, the graduate is still, in some of these countries, subjected to a further State examination before he is allowed to enjoy the full privileges of the profession; and in all a certain service is prescribed in practice prior to such full enjoyment, to insure the experience and practical skill necessary for the safe exercise of his professional duties as a general practitioner.

In all the countries named the most absolute laws are stringently executed to prevent any one from practising in any department of medicine or in pharmacy, without the required credential; and upon any having the temerity to disregard these laws the severest penalties are very surely inflicted.

While in these great and populous countries there are many preparatory medical schools, there are in each only from three to four superior schools competent to confer the degree of doctor of medicine, which alone, in addition to other requirements, secures the privilege of full practice in medicine and surgery.

In Great Britain the number of medical schools recognized by the highest medical authority is from thirty-five to forty. The schools proper are divisible into such as grant degrees, and such as only give certificates of study. To the first, belong the university schools in general; to the latter, hospital schools and most of the independent schools. The second class stand, therefore, in a relation somewhat like that of grammar schools to the degree—conferring institutions. This second class agree in giving instruction in the same essential branches of medicine, and having a winter session and a summer session, which together occupy the entire year, and also in expecting the students to follow the courses of study at least three years.

The courses of instruction in the institutions having power to confer degrees differ from those in the foregoing only in that they extend through a period of four years, and, in general, are given by a class of more eminent men, each confined to one individual branch named in the curriculum of study.

The degrees conferred in Great Britain are those of bachelor of medicine, master of surgery and doctor of medicine. The degree of doctor of medicine is conferred only upon candidates who have obtained the

degree of bachelor of medicine, have spent since their graduation at least two years in attendance upon a recognized hospital, or in the military or naval medical service, or in medical and surgical practice, and are either possessed of the diploma of bachelor of arts from a recognized university, or have passed a satisfactory examination showing an amount of knowledge entitling them to such diploma. In the entire Kingdom there are only three institutions, as we understand, authorized to confer the degree of bachelor of medicine or doctor of medicine, and in London only one—the University of London. This is a corporation entirely unconnected with teaching, but consisting of a body possessed of legal power to examine all applicants for degrees who have complied with a curriculum prescribed by its ordinances. This plan of having the degree-conferring institution separate from and independent of those that teach is advocated by some as being the only reliable one to guard against the vicious system of granting diplomas to many who are really undeserving of such honor, but who are thus generously dealt with because of the sympathy or interest of their respective teachers or faculties.

An Act of Parliament, passed in 1868, entitled "The Medical Act," and since improved by successive amendments, laid a broad foundation upon which has been built up a very complete and harmonious system of medical education. It requires all practitioners to be registered, or else they cannot recover a charge; that no one shall be registered who is not certificated, licensed or graduated by one of the legally authorized societies or collegiate bodies named in the Act, and on the basis of qualifications already recited; provides a council to supervise all institutions to determine the faithfulness with which they fulfill their offices as educators, examiners and licensers, and to strike them from the authorized list if they fail to comply with the standard. The execution of this law is fully intrusted to this general council of medical education and registration, composed of persons of the highest character and attainments, invested with power to regulate the course of study, the manner of conducting examinations, the conditions of granting the diplomas, and generally with every authority necessary to insure the complete fulfillment or realization of the purposes of the Act.

Such, in outline, are the advanced systems of medical education in Europe.

And we may even go to South America to find models of medical educational institutions that we might profit by patterning after.

There are in Brazil two medical faculties, one being located at the

capital, both under the same governmental regulations. The course of study in these schools extends through a period of six years, and embraces twenty-one full professors, and twenty-one assistants, all of whom are appointed by the government, after competitive examinations. Admission to medical study in these faculties is only after an examination in the leading branches of a general education, applicants being particularly examined in Latin, French, English, history and geography, rational and moral philosophy, arithmetic, geometry and algebra. The annual and final examinations are rigid, and cover the whole ground of the medical course. The diplomas conferred are those of apothecary, bachelor of medicine, and doctor of medicine; and no person is allowed to practise either pharmacy or medicine without such evidence of scientific preparation. Even foreign graduates of medical schools, with diplomas certified to by the consul accredited from the country where they were issued, and resident in Brazil, must pass an examination by one of the imperial faculties before they are permitted to offer themselves for practice.

And now, when we turn to the United States, what do we find? A few of the medical schools, how many we know not, much to their credit, have already demanded a more liberal preliminary education, have enlarged their range of professional study, and extended the length of their sessions, particularly noticeable among which we may mention the University of Pennsylvania, Harvard University, and the Chicago Medical College. The University of Pennsylvania has very recently resolved that the time of instruction should be extended to three years, the diploma being granted after examination at the end of the third year; that the annual course of instruction should be prolonged, and that such instruction should be graded. It has also united the Medical Faculty and the Hospital Staff, to some extent, and has added four professorships to the Faculty of Medicine, making eleven altogether.

Harvard has ten full professors, besides assistants, and its course of instruction has been so enlarged as to extend over three years, nine months being employed in study each year, and the studies so arranged as to carry the student progressively and systematically from one subject to another in a just and natural order.

"The Chicago Medical College," it seems, "was established in 1859, expressly for the purpose of carrying into effect the system of *graded classes*, longer lecture terms, and a much more extended as well as a much more systematic course of medical study and teaching. The system then adopted, and since carried out, of three courses, consecutive

or graded, so as to secure one for each year of the student's period of study, with complete hospital facilities in every department, (each Didactic Chair having its corresponding Clinical Chair,) and laboratories for practical chemistry and mineralogy, together with a regular college term of nearly six months, and a supplementary term of three months, is in practice actually more complete than that of Harvard," or the University of Pennsylvania.

But very few of our medical schools employ more than from six to eight professors, or teach more than that number of subjects, their course or term extending over only four or five months per annum, with a summer session of three months that students may or may not attend at their option, they not being required to do so as a part of the regular course prescribed for candidates for graduation. Here we allude to the respectable schools, many of which have been in operation many years, and have established a good reputation.

But while we may say thus much for the better class of medical schools, we regret to be compelled to admit that there is a larger number of them claiming to be regular that are glaringly defective in many respects, and whose existence is constantly working extensive and grievous damage to the public interest and reflecting increasing disgrace upon the medical profession. They require no preliminary education; have a small corps of inferior teachers; a meagre curriculum, passed over in four months at most; whose very slight requirements are not rigidly enforced, but where, instead, diplomas are granted almost without conditions, except the payment of a sum to satisfy the necessities of the vendors of these spurious or worthless documents that serve only to mislead or deceive, while they are really entitled to no consideration or respect. And the worst feature in this matter is that schools of this very low grade are multiplying far more rapidly than those of the better class first alluded to.

This is, indeed, a deplorable and mortifying condition of affairs, and the most distinguished and sagacious philanthropists in the country, and the best minds in the profession, including members of the Association, and the more prominent and wiser of the medical teachers, should unite in devising means, or recommending a plan, whereby this great evil may be suddenly checked and finally completely eradicated. Unless successful action in this direction can be promptly had, a degree of demoralization and degradation must ensue in the profession the ultimate calamitous effects of which it would be difficult to foresee or estimate.

In view of this unsatisfactory attitude of a vital question, it is not only legitimate for anyone taking a proper interest in the subject to express his individual opinions touching the matters involved, but it is his duty so to do, such opinions to be taken and estimated for what they may be worth. We propose to exercise this privilege, but before proceeding to the task, we wish to say that, while presenting the medical schools of this country in very unfavorable contrast in many respects with similar schools in other countries, and lamenting the comparative inferiority of many of them, we are yet gratified that we can point with pride to some of them, and rejoice at the indications of improvement exhibited by many others. We also desire that our allusions to or our attitude towards the medical profession in this country should not be misinterpreted. Our sympathies, as one of its members, being all with it, and our concern for its character and welfare being decided, we have, of course, designed to do it no injustice, but to judge all connected with it fairly. There are within its pale every conceivable grade of worthiness, of qualification and of merit, as with the schools; and the only just rule to apply in estimating its character is to discriminate between the members, to judge each separately, and to accord credit or discredit to one or another in harmony with his real worth. Many of those engaged in active practice in the different sections of the country, particularly in the larger cities, are very able and highly accomplished men, who have shown by their achievements in every department of medicine that they are fully equal as practitioners to their most distinguished brothers in foreign lands. Their success under adverse circumstances is to be attributed to native genius and vigor of intellect, jointly with great industry, and the fact, besides, that many of them have had the enterprise to seek and the means to enable them to enjoy the advantages of the best European schools to which flattering allusion has been made. We have a right to be proud of many of these our countrymen, but we should take special national pride in founding schools of our own fully equal to any to be found abroad.

In this connection it is timely and proper to say that for many of the facts we have stated in reference to these foreign schools we are mainly indebted to the Report on Education, made in 1870, by the United States' Commissioners to the Paris Universal Exhibition, held in 1867.

As the author of this present report, and solely responsible for its views, we are ready to avow ourself as being in favor of a most radical and revolutionary change in the system of medical education prevailing generally in this country, and elsewhere to a limited extent. We would

abolish the entire system of office instruction by a single practitioner, for, he being absorbed in active practice that really leaves him no time for teaching, the pretended instruction he can impart is necessarily faulty and inefficient in the highest degree. Under this system a mere office boy, employed in the first instance to perform menial service, and without any adequate education to prepare and fit him for the study of an intricate profession requiring a vast range of knowledge to qualify him for its duties, is often quickly inspired with the thought, and then with the desire of becoming a physician; and after one or two years, or perhaps a few months only, of irregular and imperfect study, he is sent to a medical college; is hurried through a programme of eight or ten lectures a day; and after attending two such sessions is sent forth, armed with a diploma, to assume responsibilities involving life or death, to the imminent peril of the diseased and suffering patient. Or a young man, after acquiring a fair education, enters a physician's office as a student and passes through a course, probably of twelve or eighteen months' duration, of interrupted and irregular study, and then repairs to a medical school, to go through the same round of lectures in continuous succession, one hour each, until from six to nine are listened to from day to day on as many different subjects. To spend such period, in the manner detailed, with a medical practitioner, is worse than waste of time, for he obtains by that course only a confused, incongruous knowledge of a few facts, and is quite unprepared to pass profitably through the hurried, cramming routine mentioned.

But in lieu of these objectionable plans, it should be imperatively required of every student, as a pre-requisite to matriculation into any medical school, that he shall have received a liberal literary and scientific preliminary education, embracing Latin, Greek to a certain extent, Mathematics, Natural Philosophy, the elements of Chemistry, and Botany, besides a thorough knowledge of the English language—the lack of any previous medical instruction whatever being preferred.

As to the medical schools, they should be of two classes—the preparatory and the degree-conferring. In the preparatory school beginners should be taught for two years or more, and be properly prepared to enter the higher school, where their studies would be continued an additional period of two years, or until they could pass satisfactorily the final rigid examination that should be prescribed for all candidates seeking the degree of doctor of medicine. The entire course of study should extend through at least four years, and each annual term should embrace ten months. A part of this course may be spent in the one

class of schools and another in the other, as thus far contemplated. It should be competent, however, and probably would be quite advisable, for the higher schools, authorized to grant diplomas, to adopt a regular course or term of four years, divided into four annual sessions of ten months each. In such case they might serve as both the preparatory and graduating school, the students being divided into four classes, one for each year of the full term, as a freshman, a sophomore, a junior and a senior or graduating class, as in literary or scientific institutions. It should be allowable, further, for any student to graduate at the end of three years, provided he could in that time pass creditably through the entire four years' curriculum, and be able to undergo satisfactorily the severe test to which he would be subjected at the final examination for the high degree sought by him, that of doctor of medicine. And where students so preferred they might pass the first two years of their time in the preparatory school, and the last two in the higher school entitled to grant this much coveted honor. In every school the students should be divided into classes, and the studies be so arranged and classified as to present them to the learners in proper consecutive order, thus preventing confusion, and insuring to them at every step of their progress a clear comprehension of the matters taught.

The complete curriculum should embrace all the subjects usually taught in such schools, as well as such cognate subjects as should be mastered by the medical man, to prepare him for his great work. Among these should certainly be included psychological medicine and hygiene.

It is well known that many of the diseases of the mind in their incipient stages, if quickly detected and promptly treated, may be arrested and cured, when, if neglected at that important and critical time, they may become hopelessly incurable. It is a matter of the highest moment, therefore, for medical men to be so informed in that special class of cases as to be able to discover their true character at the time of their earliest invasion.

And as for hygiene, its great practical importance and wide-reaching usefulness are becoming to be very generally conceded and appreciated, and a separate Chair on that subject has recently been established in many of the schools where previously it had been entirely overlooked and neglected. The importance of sanitary science—of preventive medicine—of all the knowledge and means that may be successfully brought into use to detect and remove, "stamp out," the causes of disease, particularly of endemics and epidemics, and thus to preserve

the health, whether of individuals, of communities, or of nations, are facts so apparent and self-evident to all thinking and enlightened persons that there is no longer any excuse for not insisting upon thorough instruction in these subjects as indispensible to the completion of every physician's education.

Nor should we forget the subject of medical ethics in our rapid glance at the multiplied departments of learning that have been already added, or have been proposed to be added to the curriculum of studies prescribed for the student to pass through before he shall obtain the doctorate, or be allowed to exercise the functions appertaining thereto. This subject should be attached to the Chair of Hygiene, as such association seems more appropriate than any other; for while we are engaged in laying down rules for the preservation of the physical health of the people, we should be careful also to state and inculcate laws the observance of which is so indispensable to the moral health, or to the just moral views, of every member of the medical profession, and to wholesome harmony and good feeling among its members generally. We have an excellent code of medical ethics, provided by the Association at the time of its original organization, that if properly understood and observed by physicians in their daily intercourse with the public and with their fellows, would prevent many occasions of heart-burnings and difficulty among them that are both annoying and discreditable to a very high degree. Unfortunately many are either oblivious of the existence of such a code, or knowing better, choose wilfully and culpably to disregard its wise and reasonable requirements. This code should be carefully taught to all students, and its beautiful precepts be so impressed upon their minds that they could not forget them, nor fail to observe them in their subsequent professional life. Such faithful teaching, as a regular part of their education, would serve to instill into them the instincts and feelings of gentlemen, while they were being made learned and accomplished physicians. It has ever seemed to us that this subject has been too much neglected, and we have aimed for several years to induce its adoption by the medical schools as a part of their regular curriculum of studies. It is to be hoped that it will no longer be esteemed too lightly, nor be allowed in consequence to be still slighted or neglected, as in the past.

In all these schools anatomy and chemistry, in their several departments, should be especially well taught in the most practical manner, because like favorable opportunities for such instruction would not probably be subsequently enjoyed. And each student should be thor-

oughly drilled also in the art of physical diagnosis, including the expert use of the different contrivances or implements designed to aid in such investigations, not excepting the microscope, and the skillful use of the instruments employed in general surgical operations, not overlooking the obstetrical forceps, as well as those specially adapted to operations upon the uterus, the rectum, the eye, the ear, the mouth and the throat. In brief, the ability to employ dexterously all the many ingenious contrivances or inventions that have been devised of late years particularly, whether for diagnosis or for some delicate and important practical operation, should be carefully taught to the student at some time before his graduation, that he may be able then to go forth to his work sufficiently prepared to devote himself safely to any department or specialty embraced within the wide range of the physician's studies, or the broad field of his operations. His medical senses, too, should be suitably cultivated and developed, that he may be able to exercise them with much practical benefit. And all should be encouraged to adopt the habit, at the very outset of their practical career, of close and careful observation at the bed-side, and of taking intelligent and faithful notes of the more interesting cases treated by them.

To make it manifest that a liberal preliminary education should be insisted upon, embracing the sciences of mathematics, chemistry and natural philosophy, it is only necessary to remember that the physician's vocation is one of extensive range, concerning the health and the life of the human race, and reaching even to and affecting to a degree the strength and duration of nations. The preliminary study favored is necessary to develop the mind, to train it to think, to reason, to investigate, and to solve many of the most difficult problems that are ever presented to the human understanding for solution. His investigations of diseases and their subtle causes require necessarily a very acute mind, the power of close and searching observation, sound reasoning, and the ability, by virtue of his ample scientific knowledge, to make, with the greatest exactness and accuracy, the most elaborate calculations. The field of his observations and actions is diversified and immense, indeed, and none but men possessed of strong intellect, with a broad and comprehensive education, should dare to enter it. It is but brazen and arrant presumption for any others to do so; and all incompetents should be sternly excluded from the honors and privileges of the profession, however long they may have studied, or earnestly striven to gain admission to the fraternity upon which is imposed such momentous responsibilities and duties.

And should the standard of education as here suggested be adopted, and if none but men of liberal attainments and genuine merit were allowed to enter the profession, the best and brightest youth of the country would flock to our superior medical schools, and an ample supply of thoroughly educated and highly competent laborers in this important and indispensable sphere of effort would soon be in readiness to meet the demand in every quarter of the land, in the rural districts as well as in the cities and towns. The railroads and other roads of travel, attended with lines of telegraph, are rapidly penetrating every section of the country, and new and inviting fields for occupation are constantly being opened up to the young and enterprising, including the medical adviser. There would be no danger, therefore, that the rural or sparsely settled districts would suffer for medical aid, if the incompetents and irregulars were debarred the privilege of practice, as it is argued by the advocates of the low, lax system would be the case under the rigid action we have urged for the protection of all classes and sections.

The main ideas here advanced by the author, it may be perceived, are a liberal preliminary education; the establishment of preparatory medical schools for beginners instead of having them rely on private preceptors for any instruction received before entering a regular medical degree—conferring school, or that an equivalent provision be made in such regular school for that class of students; the greater length of time, not less than four years, required to be spent in attendance upon lectures and other modes of instruction; the important and considerable additions to the curriculum of studies; greater attention to clinical instruction, including physical diagnosis; the more practical teaching of anatomy and chemistry; the thorough drilling of students in the art of handling dexterously the various contrivances and instruments used in practice, and the classification of students and studies, so as to insure the profitable consideration and the clear comprehension of the matters taught.

If these suggestions be adopted and properly carried out, and if the numerous teachers and students but faithfully and diligently perform their respective parts of the work assigned to them, the graduates would emerge from their *alma mater* so thoroughly educated and qualified in every respect that the evils about which so much has been written and spoken would soon vanish, and we would not much longer be troubled with incompetent or irregular practitioners, or with pretended new systems of medicine. Such plan, taken comprehensively, if truly and honestly put in operation, would needs, it seems to us, more promptly and effectively overthrow and supersede than would any other expedient the faulty system of education heretofore existing and so strongly condemned, and remove from among us its natural and bitter fruit, the blighting curse of empiricism with which we have so long been afflicted.

JOS. F. MONTGOMERY, M. D.,
Chairman.