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*Amendments
page 91*

ASSOCIATION OF
AMERICAN MEDICAL COLLEGES

PROCEEDINGS OF THE SIXTEENTH
ANNUAL MEETING, HELD AT
PITTSBURG, PA., MARCH 19, 1906.

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ADDRESS OF THE PRESIDENT.

DR. S. C. JAMES.

KANSAS CITY, MO.

It is with a feeling of profound gratitude that I come before you to acknowledge the very great compliment that you have bestowed on me in the second election to the office of president of this association, and, while I appreciate the compliment, yet I believe the mantle of responsibility falls more heavily on my shoulders now than it did after the first election. It has been my privilege and pleasure for some years to be associated with you as a member, and, while I felt highly honored by my first election as your presiding officer, the unanimous call to a second term touched me with a peculiar tenderness hard to express. I am not unmindful, however, of the potentiality of a silent tongue, nor do I forget that "the heart feels most when the lips move not." Gentlemen, I thank you, and beg your kind consideration and indulgence while assisting me in the duties of the day, assuring you of my desire to serve the association with absolute justice to every member.

It is expected of the presiding officer of this association to deliver annually an address, touching on subjects he deems most important to the membership; his research is supposed to cover the present state of progress in medical science and education, with recommendations for the future, wherein the association may keep in touch with the very rapid advancement in the protection of health so that society, through a higher degree of medical attainments and educational laws, may be benefited. However, since we have been honored by the presence of some of the distinguished members of state licensing boards, who will not only recommend but also ably assist in carrying out the advanced ideas introduced, I will not burden you with a long address.

PROGRESS.

In looking back over the year that has just passed, every medical educator who loves progress and who has availed himself of the opportunity of reading the literature that comes to us day after day can not but be im-

pressed with the magnitude of the advancement made in scientific, literary and medical teaching. The universities and colleges are requiring a higher standard each year—that is, a greater number of units or points for entrance, advocating a higher literary standing, while athletics, and especially football, is becoming less popular.

The concentrated efforts put forth by our colleges, our examining boards and our lawmakers, together with the gigantic contributions to colleges and other educational and industrial institutions by philanthropists, aggregating over \$100,000,000, have been productive of much good. The consolidation of medical schools and corporations of all kinds shows that in unity there is strength. What does it all mean? It tells us the magnificent story of united progress—amalgamation.

Visit a county, state or national medical society and note how they further exemplify unity. What progress has the nineteenth century wrought? What achievements can we record? Up to the year 1905 medical colleges were springing up in every town that could boast of a few thousand population. The united efforts of this association and the state examining and licensing boards have not only caused a decided halt in these matters, but these bodies are largely responsible for the amalgamation and the advanced standard of many of the medical institutions all over the country.

EVALUATION OF COLLEGE WORK.

Frequently students presenting the very best of credentials from literary schools have not been taught branches in the same way that they are taught in medical schools. They do not grasp the work as readily as others who have had less instruction (especially is this true in chemistry), and for this reason I would advocate that the student coming into a medical school, having done the work in literary schools, be examined by the heads of the chairs, and admitted only on what he shows he can do, and given credit for just what is due him by examination. The examinations to be given by the heads of the chairs concerned, and not by the dean, who may be an oculist, a gynecologist or an obstetrician.

Minnesota and Iowa recently determined not to accept any work done outside of the medical college, but I can not agree with this stand. I think, if a man

knows chemistry, biology, physiology, zoology or any other ology, he knows it, and what difference does it make where he learns it? It is the quality of the work done that counts, and, if it is up to the standard, full credit should be given, not forgetting the fact, however, that it takes a certain allotted time to cover the ground. Gentlemen, let us "render unto Caesar the things that are Caesar's."

The question now arises in my mind, Should credit be given in the medical course for the preliminary studies beyond the entrance requirement? Yes, by all means. I have in mind a teacher in a military academy who has taught various branches, among them the foreign languages and the sciences, also higher mathematics and history. Must such men as he enter the freshman year of the medical school and waste one year of the time that is now growing precious to one of his age, when he is as familiar with the subjects as is the teacher?

UNIFORM CURRICULUM.

As to uniform curriculum, time has not improved the condition, the necessity of which was touched on in the president's recommendations last year at Chicago. I am more fully convinced than ever of the advisability of uniformity in this field. With students transferred to us from three different association schools this last year, it was imperative for a special schedule in each case; therefore, I consider the action taken last year a most timely one, and I urge on you the necessity of enforcing the curriculum adopted by the association in 1905.

The Iowa State Board of Examiners recently also adopted a resolution requiring four terms of seven months each, no two in a calendar year, giving no advanced standing for literary or scientific degrees. We wish to congratulate the Iowa State Board of Health for conforming so closely to the requirements of Article III adopted by this association last year in Chicago.

INTERSTATE RECIPROCITY.

Gentlemen, it is unquestionably the duty of this association to adopt resolutions fixing the standard for the schools of this body, so that the licensing boards of the 47 states in the Union, who are the watchdogs of the public health of their community, can co-operate

heartily with the association, thereby promulgating harmony and a condition that is of a mutual benefit, as well as laying a foundation for state reciprocity. Some of our licensing boards do not seem to understand the relationship of medical colleges to themselves, but regard us somewhat antagonistic, when such is not the case. They often assume the rôle of dictator, outlining the college curriculum and requirements, with not a man on the board who has had a day's experience as a teacher, holding his office on political rather than educational grounds, and, therefore, he is not always competent to pass on the entrance and graduation requirements.

This association, through its membership, the medical schools, educates the man and places him in a position to serve the public in a scientific manner; the licensing and examining boards are clothed with municipal power, by statutory regulations, to prevent any irregular application of this knowledge, which shows what great assistance the two organizations can be to each other if they work in harmony. I had hoped, having read the notice in *THE BULLETIN* of our association, that the American Confederation of Reciprocating Medical Examining and Licensing Boards would hold its meeting at this time and that we should have the hearty co-operation of this body.

If I could make a suggestion to these boards, without the appearance of assuming a dictatorial attitude, I would like to submit a resolution in conformity to the ruling of the supreme courts of North Carolina and Michigan to the effect that those who are already in the practice of medicine, many of whom have grown gray in the profession and have received that approbation from the public that was sufficient guaranty of their competency, should not be needlessly subjected to an examination. The real test of a man grown old in practice is that he shall be a graduate of a legally authorized medical school of good standing in the United States or foreign countries; and when we can so legislate that each state will have a uniformity of laws governing the practice of medicine it will make little difference on which side of Mason and Dixon's line a man received his medical education. All fair-minded men can see how unjust it would be for an oculist (or a specialist in any line) to take an examination on internal

medicine after ten or twenty years of special work alongside of the recent graduate who is fresh from the laboratory, the clinic and the lecture room. "Experience is a dear teacher, but a good one." We have all made mistakes, but we are not going to repeat them. The young practitioner has his experience ahead of him, while the senior practitioner has his behind him. As long as the present laws in the several states remain as they are, without uniformity, it is bound to work a hardship on the profession if from any cause, imaginary or real, a physician wishes to change his location.

The inconsistencies of many of our state laws controlling the practice of medicine and surgery leads us to a demand for national laws that would abrogate the present irregularities and bring about a uniform educational standard, acceptable to every examining and licensing board in the United States, thereby resulting in a general interstate reciprocity and a national standard that would simplify and create a system of medical licensure that would be accepted. The boards in the majority of states have already adopted uniformity in written examinations. They also insist on a medical diploma from a recognized institution whose curriculum has been approved by said boards. In many states the discretionary power of the boards is limited by statutory provisions and prevents, in a measure, the adoption of a uniform educational standard, but that can soon be overcome when our legislators know that a scientific body of men has determined on the essential features necessary for a general law of universal reciprocity. To further this end, I solicit the indorsement of this association that such a national board be created from delegates sent from each state and territory.

In conclusion, I wish to congratulate the chairman of the judicial council, Dr. William J. Means, for the efficient and complete report rendered at our last meeting. It emphasizes the magnitude of the work done by the council and the untiring efforts of the chairman in behalf of the schools of this association. As your presiding officer I have kept in close touch with the work done by this council through the able assistance of the secretary. The secretary and treasurer, Dr. Fred C. Zapffe, also deserves his share of commendation. By his able efforts in compiling the minutes, in issuing the official bulletins, and in his ever-ready co-operation

with the chair and judicial council, together with the heavy correspondence from the various examining and licensing boards, the colleges seeking information for admission requirements, and the thorough and numerous inspections of schools in the association—well, it is safe to say—"he belongs to no ten-hour-a-day union," or he would have called a strike long ago. His services have been highly satisfactory; his judgment is not to be questioned, and his assistance is unmeasurable.

COULD CREDIT BE GIVEN IN THE MEDICAL NURSE FOR PRELIMINARY STUDIES BEYOND THE ENTRANCE RE- QUIREMENTS?

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When I received the very pleasant invitation honoring me to prepare this paper, an outline of an argument suggested itself that led me to accept. On reading your transactions for last year, I found that it had been presented to you by Professor Main and much more effectively than I could have hoped to have done. Had I looked before I leaped, probably I would have refrained from leaping at all. Having leaped, I must seek to extricate myself from the straitened position as best I can. Mrs. Frances Hodgson Burnett, in a recent magazine article, neatly expresses a universally recognized fact. She says: "There are always two ways of looking at a thing; frequently there are six or seven." This last suggestion was comforting to a mind at sixes and sevens. It remained to search among the half-dozen points of view not presented last year to secure one suitable for our purpose.

If our discussion is to be of any value, we must start together and seek the same goal. First, then, the goal. We want men and physicians. Possibly better, men who are physicians—and I use "men" generically and not as a distinction of gender. We want men, not merely human beings; the vir, not the homo. Our starting point is our present American educational hodge-podge called by courtesy a system. We must

take the conditions as they are, and strive to make the best of them. Should ever the conditions be improved, so much the better; that is not our present problem.

Note, please, I put the man before the physician. This may be undue prominence, but it is doubtful if you can make a physician out of less. You may make a practitioner of physic, you may make a doctor of medicine, but not a physician. Consequently we must note the limitations of the threefold nature of man. The physical, on the one hand, because one does grow older. Were it a matter of indifference how late in life one entered on his life work, there would be much less for me to say. There is no royal road to learning, we are told. Consequently, we must not use time with regal lavish, but economize wherever possible. The other extreme—"man's spirit"—is not trained by curricula, but is developed in an atmosphere where the traditions are for high living and where a pure ideal habitually is placed above the sordid real. If we give the intending physician such an environment, we are helping his development. After all, the chief concern in our discussion is the mental discipline leading to intellectual development and the acquisition of knowledge.

Let us define our goal more precisely. President Nicholas Murray Butler says that the world needs today "broad men sharpened to a point." A president of another New York college expresses it more concretely thus: "The man who practices any profession shall know something besides the knife edge of his profession."¹ Using President Merrill's metaphor, we want the edge and it can not be ground too keenly; but that edge should be backed by steel of sufficient weight to stand the ordinary wear and tear and so tempered as to keep its edge. We may not push the parallelism too far—that scheme of education whose outcome is a finished product is a failure. Better by far have a mind capable of growth, lacking in knowledge of facts, than a walking encyclopedia, becoming, like its namesake, out of date in less than a decade.

The experience of the ages, confirmed by the opinions of educational experts so nearly uniform as to be practically unanimous, teaches that the broad culture (the preparation of the steel to receive the edge) can be

1. President Merrill of Colgate University, Regents Bulletin, No. 58, p. 270.

obtained best by teaching whatever subjects that are taught for the mastering of the subject itself, and not for the practical application of the knowledge obtained to the affairs of every-day life. This consensus of opinion is apart from the character of the studies themselves. About these there is no such unanimity.

Again, the traditions of the higher ideals of life, apart from the rush and greed which form so large a factor in the business world, is conserved to a greater degree where such courses are taught. Hence, other things being equal (and the limitation is essential), the man part of our compound product will be more apt to be developed and with less expenditure of time by a college course than in any other way. Consequently, it seems to me wise to offer every inducement possible to secure this training for medical students. If it is not, then this discussion is a waste of time.

The acceptance of the truth of this proposition has led to various educational plans. Thus, Johns Hopkins, and afterward Harvey, require this training as an entrance condition. Other institutions with similar equipment have adopted the combined course, where the first-year medical studies are offered as electives to the seniors of the academic department, awarding the bachelor degree at the end of the first medical year. With our present educational system, I can conceive of nothing more pernicious or misleading. This is a sweeping statement and contrary to the views of many whose opinion I respect; it is necessary that I should give a reason for the statement.

In the fortieth University Convocation of the State of New York, held in 1902, this question was under discussion. During the debate, President J. M. Taylor of Vassar said: "It is generally granted by men acquainted with our colleges that the senior year is worth two other years as far as its liberalizing tendencies are concerned."² Accepting this statement, the combined course drops the culture studies at the time of times when they should be continued, and substitutes technical studies for them; and the evil is not diminished by the fact that some of the subjects may be the same. It is, in effect, passing a man into his medical course at the end of the junior year (in some colleges at its beginning) with the culture course unfinished and label-

ing him falsely. You are making the physician at the expense of the man. Doubtless a culture course could be arranged of three years. This suggestion is made frequently, and Harvard permits a man to finish the course ordinarily requiring four years in three. But this is not done when the medical course is made a senior elective.

The forty-second University Convocation, held in 1904, continued the discussion of the fortieth convocation. In the opening address by the chancellor (the Hon. Whitelaw Reid), referring to the expected discussion, the following sentence is to be found, which is suggestive because it expresses the opinion of a thoughtful man of affairs looking at the subject from without. He says: "But I may venture beforehand on their territory long enough to express the hope that neither in their discussion, nor in any other under these auspices, shall any decision be reached to call fifty cents a dollar, whether in your coinage or in your scholarship."³ Does not the bestowal of a bachelor degree on an undergraduate, because he has attended a year in a medical school, mint unassayed metal? I admit the Corn Law Rhymer:

The rank is but the guinea stamp,
The man's the gold for all a' that.

But when you do see the guinea's stamp, you have a right to expect gold neither purer nor more alloyed than the standard.

As the truth can only be found by a full, frank and fearless presentation of every side of a question, I know you will bear with me while I present an asserted reason that affords a logical explanation for devising the combined course. I came across it in my study of the subject; can neither verify its truth nor prove its falsehood. I am loath to believe it to be even remotely a reason in many instances. In the hands of the objector it makes a very plausible statement, fitting the conditions very exactly.

President David Starr Jordan, in his essay on the "Evolution of the College Curriculum," says: "The fiercest conflicts of the average American college have not been with the black giant Ignorance, but with the traditional wolf at the door."⁴ This condition, so

3. Regents' Bulletin No. 64, p. 163.

4. Science Sketches, p. 229.

graphically described by Dr. Jordan, still exists as may be seen by studying the reports of college treasurers, with their annually recurring deficits. One result of this condition has been the development of as keen a search for students as may be found in any business house for trade. And an institution that can give the two degrees and throw in a year in the bargain has a very glittering bait for the prospective student, and one that can not be possessed by its rival—the unattached college.

I wish to disclaim any purpose of special pleading for the “small college,” because of the assertion that she is being crowded out by the pressure of the advanced standing of fitting schools on the one side and by the so-called university on the other. If they can not keep up properly with the procession, let them follow the plan in our American industrial world and be thrown on the scrap heap. But if the inherited habit of student seeking has developed this device of a combined course, no matter how unconscious the cerebation, whereby the stronger corporation secures a rebate not obtainable by the smaller establishment, with the possibility of the output of an inferior product, the spirit of fair play and the universal demand for a square deal should be more pronounced for institutions of learning than for packing houses.

Apropos to this discussion, I find the following in President Eliot’s last report to the Harvard Board of Overseers:

“An important aspect of this matter (academic degrees in professional schools) is the fact that the strongest support any university can give to the preliminary degrees in arts and science—its own or those of other institutions—is the requirement of such a degree for admission to its professional schools. There would be no question about the future maintenance of that peculiarly American educational institution called a college if the universities of the country would require an A.B. or an S.B. for admission to all their professional schools.”⁵

Thus far in this paper little has been said of the subjects used in the culture course. In recent years many subjects are employed in common in the culture and the technical courses, e. g., chemistry and biology.

5. Official Register of Harvard University, January, 1903, p. 41.

It has been found that a subject studied in the culture course can be foundation for the advanced study of the same subject in a professional course. Also that the student trained in culture studies can make more rapid progress in other studies hitherto unknown to him. It is only on the foundation of such fact that any claim can be made either for credit or time allowance. That a man has an A.B. degree should not of itself permit any concession. If, however, he has pursued certain studies and acquired some skill in securing the foundation for an education, it is but fair to him and works injustice to no one else to permit him to benefit from these studies if it can be done without seriously disarranging the curriculum of the professional school.

During the last few years no less than five associations have been formulating the proper course of studies for a medical school: Your own, the two confederations of state medical examining boards, the Council of Education of the American Medical Association, and the Regents of the University of New York. Probably the Southern Medical College Association should be added to the list. There is reason for congratulation that the various plans are as near alike as they are; withal, it is probable that additional changes will be suggested. For our purpose, let us make use of the schedule of your own committee, presented at your last meeting by the chairman, Dr. George M. Kober of Washington. This report you subsequently adopted and is either so familiar to you all or so readily accessible that I will not quote from it.

With the intention of having some definite figures to compare with the studies pursued in the first two years of this standard course, I put myself in communication with members of the faculties of Bucknell University at Lewisburg, Lafayette College at Easton, and Pennsylvania College at Gettysburg, all in Pennsylvania, as fair samples of unattached colleges with modern equipments. While I have received carefully prepared replies from all three, I find that it will be impossible to express the work done in the terms of your standard without a fuller understanding of the precise methods employed in each college. This much is clear: Each offers several of the subjects required in your first and second years of the medical course; each college has had students who were permitted to enter advanced stand-

ing, to keep up with their classes, to graduate in three years, and to pass the state examination. One of the colleges reports that every student so doing secured his state license, and this may be true of the others. This information will be sufficient for our purpose; probably it can be made use of more readily than a tabulated statement, giving hours, etc.

The question now can be stated concisely: Should those intending medical students who have had the opportunities of a completed culture course, and who are, presumably, better prepared for future mental development, receive any consideration from the medical school for work done over and above the preliminary requirements? Or should they be compelled to go over the same subjects in a medical school largely for the purpose of filling up a certain number of hours?

Two questions of interest suggest themselves here which I will mention, but not attempt to elaborate. 1. What will be the effect on the industry and personal enthusiasm of the student if he be compelled to re-study the elements of chemistry, for example, simply because his fellow-students are ignorant of the subject? 2. What will be the effect on the general culture of the profession if the medical schools place no premium on a collegiate education?

The implied conclusion in all that has been said is for the affirmative of the question forming the title of this paper. Before presenting a definite plan to make that conclusion appear to be practicable, I wish to quote with approval the following abstract published in the *British Medical Journal* for Dec. 16, 1905 (p. 1611). It is from an article in the *University Review* for November by Dr. Bertram Windle on "Examination in Ireland and the University Question." "Four deadly errors have long affected England and Ireland, and from which have arisen and still continue to arise all sorts of misconceptions . . . and misfortunes not only educational but economic. These are: 1. That acquisition of knowledge and education are synonymous terms. 2. That education—as apart from mere knowledge—can be easily, nay, more, can only be tested by examination. 3. That a degree or other supposed stamp of learning—always expressed by a selection of letters from the alphabet—is in itself an object of value. 4. That it means the same, however and wherever it may have been acquired."

Whatever concession is made should be made for the individual and as a matter of merit. It should not make the actual requirements for a medical education any less exacting than they are now. The scheme should be elastic enough to permit the exceptional person to succeed and strict enough to weed out the unfit, even should the letter of the conditions be fulfilled. Such a concession can be given, it seems to me, on a plan elaborated from the following outline: If an applicant for admission to a medical school shows that he is a graduate of a reputable literary college, and that he has taken a certain minimum and predetermined amount of physics, chemistry and biology, he will be assigned to the second-year class, with the studies of the first year charged against him as conditions. He will be assisted in making a schedule of studies selected from the subjects of the first two years to enable him to employ his time to advantage. Thus, of the 150 hours required by your scheme for second-year chemistry, he may need but 50 or less; and of the 140 hours for bacteriology, he may need but a small fraction. This time he could give to human anatomy and other first-year studies which he has not been able to take. After three months' work in classroom and laboratory, enough will be learned of his qualifications to enable the faculty to determine the studies to be placed to his credit and his actual conditions can be given to him. By the end of the year he must have made up these conditions to the same extent as is required of the other students to permit him to advance with his class.

Such a plan may require a readjustment of hours and the sequence of the topics taught under any subject, but the inducement offered to secure the more thoroughly trained mind will recompense any inconvenience brought about by the change, especially as it would be only temporary.

The merits of the plan are: It recognizes the value of the individual; it offers an inducement to pursue a college course in its entirety, while it does not place an undue value on a degree, it remains an object to be strived for and not a premium offered for "clubbing" courses; it places the undergraduate course of every institution on its merit and makes a square deal; and

it seeks to encourage better preparation of the material out of which to make physicians.

Many obstacles may appear in attempting to make the plan workable, but none that can not be removed if the college and the medical school strive to co-operate in good faith. And still this will cause an additional benefit—a more intimate relation between the undergraduate and the graduate courses, diminishing some of the present lack of order in our educational system. It will not fit the requirements of some of the medical-practice acts. And the same reason that caused Polonius to exclaim causes us to say with him:

'T is true, 't is pity,

And pity 't is 't is true.

For often, as we look at the vagaries of the average legislature in framing legislation for the purpose of safeguarding the people in their medical advisers, words fail us, and again we have recourse to the Bard of Avon and exclaim with *Puck*:

"Lord, what fools these mortals be."

In this connection permit us to call your attention to a recently published report by the Committee of Management of the Conjoint Examining Board in England.⁶ The Council of the Royal College of Surgeons asked the committee, among other things, to consider as to the desirability of treating chemistry, physics and biology as subjects of preliminary education for which an examination must be taken before entering on the study of medicine. The committee negatives this suggestion and calls attention to the present regulations, a synopsis of which may be found in your own transactions for the last year. Among other requirements, the candidate must have had not less than 180 hours' instruction and laboratory work in chemistry, 120 in physics and 120 in biology. These may be taken either in the medical school or in another institution, if such institution be recognized by the Examining Board for England. Under certain conditions, which can be complied with very easily, these studies pursued in a school other than a medical school will count for six months of the required curriculum of professional study.

In conclusion and briefly, my plea is that all well wishers for the highest usefulness of the medical pro-

6. Brit. Med. Jour., Feb. 8, 1906, p. 275.

fession ought to strive to have the candidates trained in a technical manner, i. e., by those institutions making use of the methods demonstrated by experience to be best adapted to fully develop most men; for we can not make use of the exceptional man as an example. That a college training is that method and is eminently desirable for the preparation of the material out of which the physician is to be made. That taking professional subjects, taught for the technology in a professional school, is not a college of liberal education; and the giving a culture degree for studies pursued technically is a mistake. That science studies can be used for liberal culture and fit the student to pass at once into advance work in the same subjects. That time allowance should be made when such subjects have been taken, especially if in conjunction with the broadening training of the college course. That the medical and other professional schools ought to foster by every means in their power the men who so prepare themselves for their life work. And that these things can be done substantially in the way indicated.

52 North Fourth Street.

WHAT MEDICAL SUBJECTS CAN BE TAUGHT EFFICIENTLY IN THE LITERARY SCHOOL?

FREDERIC S. LEE.

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NEW YORK.

It is my personal conviction in the matter under discussion that it is hardly possible for medical subjects to be taught efficiently in the literary school. In explaining this position, I hope to justify my reasons for approving the general principle that the medical schools should not allow credit for work performed outside of their own walls. The discussion need not range over the whole field of medical instruction, for probably no one would think of bringing into consideration the distinctly clinical branches. We need not go beyond the basal medical sciences, anatomy, normal histology, embryology, physiology, physiologic chemistry, pathology, bacteriology and pharmacology. I have not included in

my list general physics, general chemistry and general biology, for I believe that the medical school of the present day ought not to be called on to offer instruction in such fundamental subjects. Their proper habitat is the college. For the student of medicine they stand in much the same relation to his professional training as mathematics and his mother tongue, and their elements should always form a part of his equipment when he undertakes his special study.

Confining myself, then, to the eight sciences named, my conviction is based partly on general and partly on special considerations. In formulating these I may be presenting matter with which the members of this Association are already familiar. Even if this be true, the reiteration of arguments, if they be sound and not yet answered, seems to me not without value in a problem which is so closely connected as this with the maintenance of a high standard in medical education.

My first general argument is based on the fact that the object of the training given by the college is fundamentally different from that given by the medical school, and this difference connotes a difference in method. The difference in object is that which always exists between the general and the special. We send our boys to college to develop them intellectually, physically and morally, to quicken their memories and imaginations, to make them sympathetic, to give them high ideals of character and ambition, to give them the culture that the well-bred man of to-day is expected to possess, to enable them to develop helpful and stimulating friendships, and to make them so efficient bodily and mentally that in whatever sphere they find themselves later in life they will do worthy work. We send our boys to the medical school that they may acquire an exact knowledge, morphological and physiological, of the human body in health and disease, that they may learn to know when the body works rightly and when wrongly, how to prevent disease and to cure it when present, how to relieve suffering and to save life. The college gives the general development that is helpful in obtaining the special equipment and making proper use of it. That the ends of the medical training may be secured, it is, above all things, essential that the knowledge acquired by the student in the school of medicine be exact, specific, abundant, and always at the service

of the individual. During no other four-year period of his life does he fulfill these requirements of learning so well as during the four years of his life in this school. In these respects the training of the college is markedly inferior. The baccalaureate, fresh from his college tuition, on entering the medical school, is struck by the difference in method. In conversing with students of medicine I have met with unanimity in this regard. The demand for exactness in minute detail now required of him is something to which he has not been accustomed. Not rarely it seems to him at first unnecessary and pedantic, and he rebels against it. Later he comes to realize how essential it is for his ultimate success, and his method as a learner changes. The four years of medical study present a light task for no one. Undergraduate days in the college may have been full of ease; the days of the medical student are never free from constant and hard labor. The former were dedicated to the general, the latter to the special, and the methods of the two are far apart.

My second general argument in the proposition under discussion is based on the nature of the subject matter that should be offered the student of medicine in the sciences named. For purposes of medical instruction ought these sciences to be considered as pure or as applied sciences? For purposes of medical instruction, I answer, they should be considered as applied sciences. No one can appreciate more strongly than I the need of a fundamental grounding in pure science by the prospective physician; it is the alpha of his preparation; but it should be antecedent to his entrance into the school of medicine. As a medical student the idea should be held before him constantly that medicine is an applied science. By this I do not mean to advocate narrowness. It is true that medical anatomy, medical physiology and medical chemistry are terms which too often signify limited conceptions. But there is nothing in the phrase, "applied science," which prevents its subject matter from being treated in a broad-minded and liberal spirit, which promotes a wide outlook and stimulates to research. With such a spirit only have I sympathy, and in such a spirit our students of medicine should be taught the relation of the knowledge which they acquire daily to the practical needs of the practitioner. Theoretically this can be done in the

college; practically it is not done there. It is reserved for the instructor in the medical school, who is constantly in the clinical atmosphere and with whom the clinical application of the scientific fact is not merely a remote obligation.

The special considerations which I entertain regarding the proposition in question pertain to the individual sciences, and these may now be considered *seriatim*.

Anatomy affords a striking example of the characteristic method of instruction of the medical school. Beginning with the bones of the skeleton, the student's knowledge of anatomy must be exact, specific and detailed. I venture to predict that no member of this conference is acquainted with a course in human osteology given in a college of arts and science, from which the student comes so well equipped in any degree as the average medical student at the end of his anatomic training. The college undergraduate would flee from such an infliction. These considerations apply with equal force to the study of the soft parts, and they would there also appear conclusive, even although the difficulty of obtaining and handling such anatomic material would seem to exclude such study from any but the medical school. The substitution of a course in the comparative anatomy of vertebrates, or the anatomy of a single mammal, such as a cat, in place of a course in human anatomy, is out of the question. Such courses are among the best as introductory to the study of human anatomy or of experimental physiology, but their object is broad and general, often with phylogenetic considerations in view, and exactness in detail is neither demanded nor desired. The medical student who is to treat the diseases of the human body must first learn the structure of the human body.

The same reasoning pertains to the question of normal histology. Normal histology may be said to be studied for three purposes: First, with the object of learning the microscopic structure of the organs and tissues; secondly, as an aid to the study of physiology, and, thirdly, as an introduction to the study of pathologic histology. For the first and second purposes a course in general mammalian histology may perhaps be adequate; for preparation for the study of pathologic histology, an exact knowledge of the human tissues is indispensable. It is the human liver and the human

kidney, not the canine or the feline liver and kidney, which the practitioner must know. It is a practical impossibility to obtain a course in human histology outside of the medical school.

Excellent courses in general embryology are now common in colleges, where they usually form a portion of the instruction in general biology. While they are admirable as introductory to the embryologic needs of the student of medicine, they rarely deal with the mammalia, and still more rarely with man. Moreover, they touch only lightly on organogenesis, a subject with which the physician, for the proper understanding of abnormalities, which more often than not are survivals of embryonic conditions, needs to be acquainted.

From the nature of the case, physiology must be studied in considerable part on animals lower than man. Hence, so far as the experimental portion of the work is concerned, there is no reason why the subject can not be taught as efficiently in the college as in the medical school; and, indeed, there are now in existence in several colleges of this country courses that adequately cover the experimental portion of the subject. It is my firm conviction, however, that in a course in physiology for medical students it is of the greatest value that the bearings of the subject on the experiences which the prospective physician is to meet should be presented. The principles of the science should not be taught in such a manner that the student fails to grasp their great and fundamental importance in the immediate demands of medical practice. It is true, as one of my colleagues has graphically expressed it, that the frog's leg kicks in the same manner for the physician as for the scientist; but this does not prove that the lessons to be drawn from this physiologic act are the same for the two individuals.

Physiologic chemistry is in much the same situation. Apart from the fact that the student's knowledge of it ought to be precise for itself, it touches at all points on pathology. It is the daily task of the physician to cope with derangements of metabolism, to deal with problems in pathologic chemistry. As a single instance of this I may cite the acid and other intoxications which recent research has shown to be widely prevalent and largely responsible for symptoms hitherto not understood. Moreover, normal physiologic products are daily

becoming more important as therapeutic agents. No course in physiologic chemistry for the medical student would, hence, be complete if it did not deal with the pathologic bearings of the subject. Such a presentation of the science is rare, if not altogether wanting, in other than medical schools.

With pathology, bacteriology and pharmacology the case appears too obvious to require consideration. Only with the elements of bacteriology, in which non-pathogenic species can often be used, would there seem an opportunity for substitution, and yet the development of the science has been so pre-eminently within the field of disease that it would seem unwise to attempt to go beyond the merest rudiments except in connection with pathology, that is, without presupposing some knowledge of diseases.

It thus appears to me that sufficient general and special arguments exist for the taking of the stand by American medical schools and by this association that, except in occasional specific instances and for unusually cogent reasons, no credit shall be allowed by the medical schools for work done in strictly medical subjects in the literary colleges. If the latter are capable of fulfilling the conditions which I have indicated for courses in the several subjects mentioned; in other words, if the colleges are able to give substantially the same courses as those given by the medical schools, there can be no objection to the substitution; but, humanly speaking, that is an impossibility. Nor is it desirable. The colleges are doing their own work and they have their own method. The work is all-important and its results are admirable. It would be a mistake for them to attempt to compete with the medical schools in the field of the latter. They are not properly equipped, and from the nature of the case they can not be properly equipped, with spirit, instructors or method, for professional training, and the latter, if undertaken by them, can be only unsatisfactory and inadequate.

In a charming and scholarly address recently delivered at King's College, London, Professor Clifford Allbutt has formulated so well the function of the university in its relation to the technical school that I am tempted to quote his words: "The function of university education is not special instruction in the lines of a profession or trade, however these ends may substan-

tively be promoted, but in expanding and enlarging the mind, making it a more and more perfect instrument of knowledge and progress, whatsoever its destination. . . . A university which adapts itself closely to instruction in the technical attainments of a trade or profession departs from its proper function." Again: "The function of the university is not qualification for the practice of any art or trade, but is a training of the mind, a formation of habits of study, of insight, of easy handling of ideas, and of methodical research . . . an opportunity which is available before, and unless in exceptional cases only before, the technical stage of study is entered upon."

The medical school is the proper place for medical instruction. We should keep the latter within our own hands. If it needs improvement, let the remedies be applied by us. The medical course, now that we have extended it to four years, should not be encroached on by pressure from without or within. It may perhaps be further lengthened to advantage, but there are no adequate arguments for abbreviating it. We profess to demand four years of medical study; we should be satisfied with no less. If we must shorten the whole period of collegiate and professional life, let the candidate for the A.B. or the B.S. and the M.D. degrees count toward his baccalaureate his first year in the school of medicine, or even his first two years, which Columbia now permits, but let us not allow the reverse. A year of so-called medical instruction within the literary college is not now, and probably never will be, the equivalent of a year in the medical school.

WHAT MEDICAL SUBJECTS CAN BE TAUGHT EFFICIENTLY IN THE COLLEGE OF LIBERAL ARTS?

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We face a condition, not a theory. There are a considerable number of liberal arts courses in which chemical and biological subjects are well taught. On the other hand, there are a large number of medical col-

leges, some of which are members of this association, in which the fundamental scientific subjects are very poorly taught. The question is not whether the work offered by the courses in liberal arts is equivalent to the ideal medical teaching or even to the teaching in the leading twenty medical colleges of the country, but rather whether it is equivalent to the average work in the medical colleges of this association. If it is equivalent, a certain amount of credit should be accorded. It is entirely a question of justice not only to the colleges, but to the individual student.

In what I have to say I wish to be understood as speaking impersonally. What follows by no means indicates my personal ideals nor the ideals or practice of the institution which I represent. I should be glad to see every medical college require at least three years of training in the college of liberal arts and science, and then build on this four or five years of efficient medical instruction. I am interested in education in general, and especially in medical education. The latter is a part of the general educational system of the country and can not be considered as distinctly of another sort.

It seems evident that we must set some limit to this question if we are to get at anything definite. I venture to adopt the following premises:

First.—The aim of this discussion of the relations of the curricula of the medical school and the college of liberal arts is to determine whether or no the college of liberal arts can provide enough of the medical work in its course so that its graduates may complete the medical course in one year less than the non-college man.

Second.—The college of liberal arts in a university which includes as an organic part a medical college immediately adjacent, i. e., in the same town or city, is not concerned in this discussion. Such a college of liberal arts, if it finds its own courses insufficient, can send its students, while yet undergraduates, into the medical courses for part of the work of the later undergraduate years.

Third.—We may as well admit that by no means all colleges of liberal arts, no matter how high their purposes or ideals, are equipped either in material resources or in men to give work in amount and of a grade that can be acceptable to the better fifty medical colleges of the country.

- We must, therefore, divide the liberal arts colleges, for purposes of this discussion, into two groups which we may call the better and the poorer. The determination of the line which will separate the better from the poorer college of liberal arts is a difficult matter and largely one of personal opinion. The factors include ideals, personnel of faculty, available income, laboratory equipment, location and grade of work in the preparatory schools of the region. We have, then, to deal with three types of colleges of liberal arts:

1. The college which is affiliated with a medical school (or even in definite organic connection) which is situated at so great distance that daily or weekly migration of students is impracticable. As an example I will cite Ohio Wesleyan University, with an intervening distance of 114 miles between its colleges of liberal arts and college of medicine.

2. The college of liberal arts in a university without any medical college in affiliation, e. g., Brown, Princeton, the State Universities of Ohio, Wisconsin, Montana, Idaho, Arizona, etc.

3. The better independent literary *college*, which term must include many institutions that go under the name of university.

It has been my privilege within the past three years to visit in term time, and inspect with the view of determining the amount and kind of premedical work done in the liberal arts course, seventy-five universities and colleges situated in the states of Connecticut, Massachusetts, Rhode Island, New York, New Jersey, Pennsylvania, West Virginia, Ohio, Indiana, Michigan, Illinois, Wisconsin, Iowa, Missouri, Kansas, Nebraska and Colorado. I have also visited some forty medical colleges. What I have to say is based on my findings in these institutions and is taken in connection with the statements in their catalogues. It may be said, in passing, that compilations from catalogues are not entirely reliable, but simple justice compels me to add that the catalogue statements of the average college of liberal arts are much nearer the truth and better carried out than are the statements, schedules, etc., of the average medical college. Until the medical colleges of this country can bring themselves to tell the truth in their catalogues they must not expect to receive any great confidence from the men in the colleges of liberal arts.

I wish to distinguish between the possibility of the college of liberal arts doing the work of the first medical year and doing enough work so that its graduates may creditably complete the medical course in three years. These are very different things for two reasons: (1) The liberal arts college can very properly do some things that lie in the second year of the medical curriculum. (2) The college graduate entering the second medical year, because of his maturity and training, has more capacity than his classmate who has been in the medical college one year, but has never had the course in liberal arts or science. I consider this increase in capacity to be at least one-fourth, which makes it necessary for the college of liberal arts to do not one-fourth, but only one-fifth, of the work of those medical schools which admit men without any college training.

It is necessary to have some standard by which to measure the efficiency for medical purposes of the training done in the college of liberal arts, even though it be arbitrary and to some extent artificial. I shall use the 4,000-hour schedule adopted by this association a year ago. I shall take up the subjects in what seems to me the order of difficulty.

Inorganic Chemistry.—There can be no question that general chemistry of the metals and non-metals (except carbon compounds) can be, is and will probably continue to be taught in the universities and better colleges not only as well, but more efficiently than it is in the average medical college. The amount of time given is in excess of that in our medical schedule, the teachers are usually not only trained chemists, but trained teachers devoting all their time to teaching and research, which is by no means true of the teachers of the subject in all the medical schools. The average time of the course in general chemistry is five hours a week for 36 weeks, or 180 hours. In addition, the liberal arts college ordinarily gives about 150 hours' work in qualitative and quantitative analysis. I think we can assume that not over one-half of the 300 hours' chemistry, i. e., 150 hours in the 4,000-hour medical curriculum, is devoted to inorganic chemistry. Against this is set at least 300 hours' work in the college. It is, therefore, clear that inorganic chemistry can be taught acceptably in those colleges of liberal arts to an extent that should relieve the student entirely of this subject in the average medical course.

Organic Chemistry.—This course is less well taught in the colleges, due to the element of time, training of teachers and expense of apparatus. But, on the other hand, it is not well taught in the average medical college. I believe that of the colleges I have inspected two-thirds give organic chemistry courses of a grade that in justice must be accepted by the average medical college of this association, judged by its own work in organic chemistry. The time is usually over 120 hours. Inorganic and organic chemistry represent about two-thirds of the 4,000-hour curriculum, and both can be so well taught in the college of liberal arts that, while the grade of teaching in the average medical college remains at its present level, the work, in justice, must be accepted.

Physiologic Chemistry.—This presents greater difficulties. I do not think that over 20 per cent. of the independent universities and colleges teach this subject in a manner satisfactory to the average medical curriculum. It is properly a technical subject and belongs in the second year of the medical school. While it can be taught in some institutions, it is inadvisable for many of the liberal arts colleges to attempt to do it.

Materia Medica.—Closely associated with chemistry is materia medica. This is distinctly a technical subject and does not belong in colleges of liberal arts. It can not be properly taught until the student has completed his chemistry. I am convinced that materia medica is best taught in connection with pharmacology, which certainly must follow the courses in physiology, and can not, therefore, properly come in the first year of the medical course. I feel that the provision in Article III, Section 6, of our constitution, which provides for the acceptance of materia medica taught in the college of liberal arts, is a grave error. Materia medica, in my opinion, can not be properly taught except in the medical school.

Anatomy.—This subject is divisible into four parts—embryology, histology, osteology, dissection and descriptive anatomy.

1. Embryology is far better taught in the average good liberal arts course than in the average medical school. About one-third of the colleges which are members of this association give no laboratory course in embryology. The 4,000-hour schedule assigns 90 hours

to the subject. The courses in the better colleges of liberal arts exceeds this by 50 per cent. I feel there is no doubt that embryology is sufficiently well given in the universities and liberal arts colleges to meet the present work in the subject in the medical colleges of this association.

2. Histology.—The time given in the 4,000-hour schedule is 90 hours. This is altogether too little for an efficient course. Histology, including some training in technic and also microscopic anatomy of the central nervous system and sense organs, needs at least 200 hours. It is, in a sense, a technical subject. The average liberal arts course can not give as much time as this, and does not cover the subject in a way to be equivalent to an efficient course of 200 hours. However, they do enough work to meet the 90 hours of our 4,000-hour schedule. On the basis of this schedule I must say that the liberal arts course gives histology sufficiently well, but I do not believe they do it well enough to meet the efficient course in histology.

3. Human anatomy has been the great stumbling block of the co-ordination of liberal arts and medical courses. Many seem to assume that for the liberal arts course to do medical work means that they must do human dissection. I believe this to be a distinct fallacy. It is clear that osteology can be well done in the universities and in colleges of liberal arts. In some undergraduate courses it is done much better than in the medical colleges, because it is approached from the comparative standpoint. The equipment for teaching human osteology, both from a didactic and laboratory basis, is not great, and it certainly can be set down as one of the possible and advisable subjects to be taught. Although there are to-day a few colleges of liberal arts which are teaching human dissection and descriptive anatomy, I do not believe it is advisable. The objections are: difficulty in securing and keeping material, general antipathy of the small college community to the subject, the doubtful moral effect in co-educational institutions, lack of instructors trained in human anatomy, and several others. I have found almost invariably that college presidents and professors are adverse to giving this work. We may, therefore, assume that, while it is possible, it is inadvisable to teach dissection in the liberal arts course.

Bacteriology and Physiology.—These subjects present somewhat different aspects. They each require a considerable equipment and a certain technical training on the part of the instructor. Most of the universities are now giving in their liberal arts course some work in bacteriology. Only a few of the better colleges are giving this. This work is usually given by a botanist and, as far as it goes, is as efficient as the work in the medical college. I believe we might simplify the problem regarding this work by dividing this subject into two courses, of which one may be called a minor or general course and the other a major or technical course.

The former would include the history of bacteriology, the general relations of bacteria to disease, the principles of sterilization, the technic of making media and the culture of bacteria and general morphology of bacteria. Such a course is of distinct cultural value to every man, and very properly can be put in the liberal arts course. It covers a considerable part of the bacteriology of the medical course. On the other hand, the subject of pathogenic bacteriology is distinctly technical and can not well be given by a botanist, but only by a man with training in pathology or hygiene and in connection with these subjects. Only occasionally does a course of liberal arts have on its teaching staff a man fitted to carry this technical side of the subject. I believe, therefore, that we may say that one-half of the bacteriology (70 hours) can be taught in the liberal arts course where a trained botanist is available, and all of the subject in those schools where a man trained in the technical phase of the subject is available.

In physiology we have somewhat the same condition. A certain amount of the subject can and is well taught in several of the liberal arts courses. The elementary laboratory work in experimental physiology, including all the nerve-muscle work, can be properly done in the liberal arts course. The advanced experimental work, including blood pressure, respiration and other experiments on mammals, has little place in the liberal arts course. It is possible, but not advisable. I feel that about two-thirds of the physiology of the 4,000-hour schedule may be done in the liberal arts course of the better colleges and universities.

To summarize: My knowledge of the liberal arts course in the universities without medical departments

and in the better independent colleges leads me to say that the following courses can be done acceptably, judged from the present average medical teaching on a 4,000-hour schedule: General chemistry; organic chemistry; qualitative and quantitative analysis, giving 200 hours' credit; histology, giving 90 hours' credit; embryology, giving 90 hours' credit; osteology, giving 30 hours' credit; two-thirds of physiology, giving 200 hours' credit; one-half of bacteriology, giving 70 hours' credit—a total of 680 hours. In addition, the following are possible but inadvisable in many institutions: One-half of human anatomy, giving 210 hours' credit; balance of chemistry (physiological), giving 100 hours' credit; balance of bacteriology, giving 70 hours' credit.

Of these the physiologic chemistry is more advisable than either the human anatomy or the pathogenic bacteriology. It seems to me that the universities and better colleges can give enough of these three subjects (some one, some another) to raise a student's credits to 800 hours.

With 800 hours' credit the college graduate can enter the second medical year in those colleges which require only completion of high school work for entrance and creditably complete the medical course in three years, because he is in competition with men who are less mature by two or three years, who have had less scientific training, and who in general are less efficient workers. Of course, the grade of work done is a crucial point. What practical way is there for the medical colleges to control this?

I believe that the only basis is the preparation of syllabi in each of the subjects which may be offered for credit. Such syllabi must have a certain elasticity, but at the same time indicate what minimum amount of work must be covered to give credit. Then a committee or board must be created to judge, after inspection, of the equipment and efficiency of the work, and whether it is entitled to credit, a sort of clearing house for advanced standing in medical colleges, just as the board for college entrance examinations for New England and middle states is a clearing house for entrance to college. If an independent college can give efficiently a standard amount of work, its students who have done this work should be passed on by some official board, either of this association, the American Medical Asso-

ciation, or the state boards of medical registration, and given certificates. The possession of such a certificate should entitle the student to a year's advanced time credit with any state board. The individual medical college would, of course, require as much additional work as it might see fit, but in practice we should find the majority of the colleges of this association accepting these certificates for advanced standing just as the majority of the liberal arts colleges now accept the certificates of the examination board for entrance to college.

Now a word as to the general attitude toward this entire question. I believe it is due chiefly to gross ignorance on the part of the men on our medical faculties and on our state boards of the work in the better colleges. An inspection of catalogues leads us to believe that not much over one-half of the teaching staff in the colleges of this association are graduates of colleges of liberal arts. Of those that are graduates many left college twenty-five years ago. The same statements will apply to members of state boards.

Being out of touch with the work of colleges of liberal arts, these gentlemen do not know the strides that have been taken in the teaching of chemie and biologic science in the past twenty years. These men judge colleges by the standard of twenty years ago. Again, they are prone to cite as examples of colleges some of the weaker schools. No one claims that all college graduates should have advanced medical credit. Many places that are called colleges and universities are doing only high school or normal school work, but there are in this country about 150 universities and colleges where the equipment is good, the faculty efficient, the work worthy. The men who graduate from these colleges are far more efficient than the men just from the high school, whom most medical schools receive, and it is an absurd attitude for certain state boards to say that they are not.

The colleges are not asking for credit for work they do not do, but only that the medical colleges shall give their graduates simple justice, and as long as most medical colleges admit the man from the high school to the medical course so long must they recognize that the college graduate deserves advance credits for such work as he has done, so far as it is equivalent to work of the medical curriculum.

WHAT MEDICAL SUBJECTS CAN BE TAUGHT EFFICIENTLY IN THE LITERARY COLLEGE?

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Speaking now from the standpoint of the literary college, it must be clearly recognized that the aims of the literary and medical colleges, though in some respects similar, are in very fundamental respects different. The independent literary colleges, which comprise the most distinctive feature of the American educational system, are entering on a critical period of testing. Ground between the upper and nether millstone, the technical school above and the high school below, it remains to be seen how they will stand the test. It is becoming increasingly evident that unless the literary college is both able and willing to maintain a definite and distinctive position in the educational world it is destined to ultimate dismemberment in this struggle. In brief, it must stand, as it has stood in the past, for higher scholastic ideals, which, however closely related they may be to technologic and professional studies, are nevertheless not to be confused with such studies. It will doubtless long continue to be true that some students in the professional schools will demand this larger preliminary training, while others will not. But, however that may be, it must be borne in mind that the literary college is not a technical school and any attempt to make it so is subversive of the best interests of both types of schools.

It is, however, fortunately true that the pure science foundation of medicine may have equal cultural value, when so taught, with any other pure science, and so there is no inherent objection to the teaching of any of these medical sciences in the literary college. If the college is sufficiently endowed to be able to supply the necessary equipment and staff, it can teach most of the pure science of the medical course, i. e., substantially the first two years. But in that case it would better take out a medical charter and affiliate with a good medical school. For it becomes in effect, if not in name, a medical school, and if the more technical medical subjects are taught by a literary college they should be given in

addition to and not to the exclusion of other biologic studies.

Our question, as I understand it, really is, What is it expedient for the literary colleges to teach under present organization and with no great enlargement of present resources? This question may be answered in accordance with the preceding principles thus: (1) No subject may be introduced into the college curriculum which has not *per se* high disciplinary value, and (2) any subject may be introduced which has such value as taught.

Now the actual selection of particular medical or premedical subjects to be taught in any given literary college must be determined wholly by the local conditions—staff, convenience to hospitals, equipment, etc. I believe that it is possible for a well-endowed literary college to give nearly or quite a full year to truly medical subjects without the loss of any of its own distinctive cultural quality. But probably no two of these colleges could properly teach the medical subjects in exactly the same proportion, for these subjects would have to be selected in reference to the capacities of the teaching staff, equipment, etc., very carefully. And, furthermore, it is quite conceivable that these colleges might properly refuse to give credit for these same subjects for their baccalaureate degree if pursued in a medical college where the instruction was amply sufficient for the needs of the practitioner of medicine, but lacking in the larger disciplinary value demanded by the literary institution. Thus, osteology may be mastered by sheer verbal memory with exclusive reference to its application to surgery. Or it may be studied from the standpoint of comparative anatomy, physiology and phylogeny, as an illustration of some of the great laws of animal evolution. Studied in the former way, it should have no place in the literary college; its value in the development of the reasoning powers is no higher than that of the multiplication table. In the latter case its cultural value is not excelled by any subject in the curriculum, and surely its value to surgery is no whit diminished by this fact.

And so we might go down the list of medical sciences and show that their admission to the literary college is in each case to be determined by the question whether they can be presented in a way which is compatible with

the genius of the institution. I think that, as a rule, a medical subject should be given more time in the literary college than in the medical college, assuming student and teacher and other conditions of equal efficiency. For the student in the former institution must be given all that the medical college requires and he should be given more. For instance, in histology more time should be given in the literary college to comparative histology and biologic theory, and in embryology to the theoretical problems of heredity, cytology and experimental embryology than is now given in the average medical college.

Some of the first-year medical subjects could not properly be admitted at all to the curriculum of the average literary college. There are, of course, exceptions, but human anatomy (the general dissection) would certainly introduce undesirable complications in most literary institutions. In certain cases, too, adequate courses in experimental physiology would be likely to make trouble, though in both of these cases the difficulty in getting properly trained instructors and adequate equipment is more serious.

It follows that but few literary colleges with present facilities can hope to give the first year's medical work in full so as to enable their graduates to enter the second-year medical work with no conditions. But a considerable number of the best colleges can, with but slight readjustment of their present courses, give a time equivalent of a full year in the average medical college, distributed in the first and second years, so that after a single year of medical residence their graduates can enter the third year of the medical course without conditions.¹ A still greater number could give suf-

1. It must be recognized that but few literary colleges, even the best of them, are offering such courses at the present time. But it is manifestly unfair to measure their ability to do so wholly by the present curricula, for very few of them are attempting to do this. Until the medical colleges co-ordinate and define their curricula and the subjects for which they are willing to give credits under any circumstances more perfectly than has yet been done in most states, there is small incentive for the literary colleges to attempt to prepare their students for advanced standing. Most of the biological departments at present prefer to devote their energies chiefly to the preparation for graduate work in pure science. They can, however, without loss of efficiency in this field, at the same time do acceptable work in some medical subjects, if it is made to their advantage to do so.

ficient medical courses to enable the exceptionally able graduate to enter the second year of the medical college with no more conditions than could be later removed without serious detriment to his work. But the great majority of literary colleges (the poorer institutions in small towns) will probably have to content themselves with admitting to the better medical schools with no time credit, but with a certain number of subject credits. These would be of the greatest value to the student by allowing him to broaden his course by taking on additional hospital or specialty work.

In summary, then, I conclude that the following subjects can properly be taught in literary colleges, without detriment to their other work, as well as in the average medical school, though each individual case must be judged on its own merits, taking into account staff, equipment, location, etc., of the college. The subjects are arranged in the order of the number of literary colleges likely to be able to present them satisfactorily to the medical schools: 1. Inorganic chemistry. 2. General biology and comparative anatomy. 3. Organic chemistry. 4. Elementary physiology. 5. General histology. 6. Elementary bacteriology. 7. Hygiene. 8. Special histology (splanchnology, etc.) 9. Embryology. 10. Specified parts of human anatomy (such as osteology, neurology, etc.) 11. Experimental physiology (advanced). 12. Advanced bacteriology. 13. Physiologic chemistry. 14. Pharmaceutical chemistry. 15. Toxicology. 16. Human anatomy (general dissection). 17. Pathology.

There are possible conditions under which any of these subjects might be taught properly in a literary college, but under the conditions now existing in most colleges it is evident that many of them can not be. Some of the earlier numbers of this list are to-day taught in many colleges in such a way as to meet any reasonable requirement in medical colleges of the grade of the average members of this association.

Finally, it should be insisted on that every literary college which desires advance standing credit in any medical schools for its medical courses should be inspected and approved by the state board of medical license (or their accredited agents), so far as the speci-

fied subjects are concerned, in exactly the same way as the medical schools themselves.²

DISCUSSION.

DR. WILLIAM H. WATHEN (Kentucky School of Medicine) :— I am on record as being one of the first to oppose the giving of any time credit for work done in any educational institution, except a medical college. I have been defeated time and again in my attempts to amend the constitution in this matter, and nearly invariably by the influence of members of this association who were in affiliation with or had some connection with a university and who were benefited by giving advanced standing. I have never objected to giving credit for any work done in any institution of learning, whether university or college, if it met with the requirements of the medical curriculum. The time thus gained the student is permitted to spend in doing work in advance of what he otherwise would have done; but he remains in the medical school the required four years.

The arguments presented to-day are convincing of the fact that the universities and colleges of the country are doing all they can to prepare men to study medicine, but they do not convince us that we should give these men any time credit. We must go to the best examples from which to draw our conclusions. If you will refer to the best universities that

2. This paper, having been written from the standpoint of the literary college exclusively, did not consider the question of the credit to be given by the medical college. But since the two subjects can not practically be separated, it may be desirable to make explicit one or two obvious implications. In the first place, the literary college is not in the position of a petitioner begging for favors from medical or other professional schools. It has its own work to do; but if it can do that work equally well, and at the same time serve the best interests of these professional schools, it is certainly advantageous to both parties to recognize that fact in practical ways. If it be to the interest of the medical profession that its members receive a liberal education, as distinguished from that of a trade school, the literary colleges will be glad to co-operate in that work. If, however, some of the medical colleges do not desire such co-operation, the literary colleges can continue their work as in the past and send their graduates to those professional schools which recognize the value of the college course by requiring at least a substantial part of it for admission.

If, again, there are medical schools which do not wish to require the college course for admission and yet desire to encourage their students to secure a liberal preliminary training, they can well afford to credit the student with whatever of real value to medicine he brings with him from this training, the medical profession itself being, of course, the sole judge of that value. And if in some instances the value of the preliminary education amounts in the aggregate to a full year of the medical course, the time credit should unquestionably be allowed. This is simple justice.

have medical departments, you will find that not one of them gives a time credit. Johns Hopkins University gives one of the best courses preparatory to medicine, but it gives no time credit therefor on the medical course. Neither Harvard, Yale, Columbia or Cornell give any time credit. The time credit is being advocated by the younger universities and colleges that have not had any experience with this subject. In the state of New York, where the law has allowed the giving of a time credit, the Board of Regents has extended the privilege to only one student thus far. Therefore, I hope that this association will put itself on record as being opposed to recognizing work done anywhere, except in a medical school, as entitling a student to advance standing, except to excuse him from certain work; that is, give him subject credit. If you leave this matter to the state boards it will never be acted on, and if left to the colleges it will be abused and no authority can prevent it.

DR. RICHARD TAYLOR (Hospital College of Medicine):—When Dr. McIntyre began to read his paper I thought he would say that he was opposed to giving time credits to the graduates of literary schools, but when he finished I really did not know just what he did favor. However, Dr. Lee gave the substance of the entire matter when he said that medical subjects occupied no position in the curriculum of the schools of science and liberal arts. I think it is wrong to allow these schools to teach the work done in the first years of the medical course, because they can not do it properly. Extend the privilege to the complementary branches, and let them teach the theory and practice of medicine, materia medica and therapeutics (which is really theoretical, yet belongs strictly to the medical course), and what would be the result? It is not practical to teach these subjects in literary schools and teach only a limited part of the course in the medical school. If subjects are taught out of order in the literary school, then the student's entire medical education is disarranged. There must be a sequence in the curriculum.

To give a man credit for time is wrong. We are trying to establish an educational standard, and if a man comes to us with a better literary education than is possessed by the average man, we will make a better doctor of him. The more lectures he hears, in the literary school, on subjects to be taught in the medical school, the better physician will he be. Dr. Lee certainly touched the keynote of the whole situation when he said that medical subjects have no place in the curriculum of the school of liberal arts.

DR. J. H. GUTHRIE (University of Iowa):—When two years ago it became my pleasant duty to deliver the presidential address before this association, I came to the conclusion, after considerable consultation with some of the leading medical educators of this country, that our association, born in 1892

for the purpose of advancing medical education in the United States, should take the ground that no time allowance should be given to graduates of literary schools, no matter how good and how thorough their education might be. If you will grant me a few moments of your time I will state briefly two or three conclusions which I have arrived at as the result of this study, and listening to the very able papers presented before this association to-day:

First. If this association grants exactly what is required and demanded by those who insist on the time allowance, what will we have? No man can gainsay the statement that we will have in our medical school a mongrel course, one which few medical colleges, no matter how well prepared, can give satisfactorily. I claim, gentlemen, that this statement can not be contradicted successfully.

Second. The colleges of liberal arts are, as Professor Her- rick ably asserted, going on grandly in their work of culture. They have certain work to do, and they are accomplishing it grandly. Every step they take is adding strength to the edu- cational fabric and system of this country. They have a large field that is as yet uncultivated. They have work enough to do and problems enough to solve without attempt- ing to solve some medical problems which must be solved by the medical colleges.

Third. By whom is such a course demanded? I claim, gen- tlemen, that after the course is analyzed you will find that it is demanded largely by medical colleges who wish to increase the number of their students. I ask in all seriousness, is this demand for time allowance made in the interest of medical science and the advancement of medical education? Is it made in the interests of higher medical education?

Fourth. At several meetings of this association we have listened to papers urging uniformity in medical education. Will not a step of this kind looking to an advance in medical education by demanding four years in residence in the medical school contribute to uniformity in medical education through- out the country? This association was born for the purpose of advancing medical education and elevating the standards of requirements. This association is co-operating with the American Confederation of Reciprocating Medical Examining and Licensing Boards for the purpose of elevating the stand- ard. The licensing boards of Minnesota and Iowa have taken a step in advance. Hereafter they will not recognize any medical college which gives a time allowance for a literary degree. Is it possible that this association, created for the purpose of advancing medical education, will send us back begging these boards to recede from their position? I hope not, because of the position we maintain in the medical pro- fession. I believe that it is a mistake on the part of the small colleges and universities to ask for this credit. There

is work enough for us all, but let the medical school and the literary school each do the work for which it was created.

DR. H. W. LOEB (St. Louis University):—I wish to express my hearty commendation of what Dr. Waite said. I do that because the institution which I represent will not give any advanced standing to graduates of literary schools. The question is not one of shortening the course in medicine, but rather one of lengthening it. This association accepts high-school graduates. The men who can present the qualifications and credentials as outlined by Professor Waite would be beyond that requirement by at least two or three or even four years, so that it is not a question of shortening the course, nor is it a question of what Johns Hopkins or other institutions are doing, institutions that require two or more years of college work as an entrance credential, because they are out of the class of our minimum courses. They could not credit the students who are college graduates and who have had this work, for the reason that they require that work as an entrance credential into the freshman year.

The question is one of simple justice. Shall the men who have prepared themselves in the right sort of a literary college, men who have had work that is more than the equivalent of the first year in the medical school, be given their just due? It is a question of justice and right. So far as I know the literary colleges are not making any effort in this direction. I think Dr. Waite struck the keynote when he said that this association should appoint a board to consider the courses given in the literary schools and evaluate them.

DR. ROBERT LUEDEKING (Washington University):—I wish to ally myself with Dr. Lee and Dr. Guthrie for the maintenance of the highest and the best standard, not alone as to qualifications, but as to time. I want to direct attention to the fact that the time allowance is going to open up avenues for the greatest amount of abuse. I know that at the present time the weak colleges have been juggling with the entrance requirements, and this will give them another opportunity. It is a well-known fact that the greatest expenditures of the medical school are in the work of the first and second years, where there are special teachers who devote their whole time to the work. The laboratory equipment is another large source of expense. This step will invite the weak schools to still further debase themselves by lowering the qualifications and lessening their equipment. There will not be a strict inquiry into the status of the literary college man. They will be as lax in this as they are inquiring into the qualifications for entrance at present. It is a stultification on the part of this association to favor any allowance for time. The men who come from the literary college will find ample opportunity for advanced work. The freshman year will not be misspent by going over the ground again. If a man comes with credits

showing that he has done the work taught in the medical school as well or better, give him credit for it and put him to work on advanced subjects, but do not give him any time allowance. The result of a time allowance would be a return to the three-year course. It will be an opportunity to shove men into the sophomore year, as they are being shoved into the freshman year now.

PROF. CHARLES F. WHELOCK (New York State Education Department):—In New York State this subject has been under discussion for some years. It has been taken up at convocations two or three times and a committee has been appointed, representing the medical and literary colleges, to consider the whole matter. A final report has not yet been made. At a meeting of the representatives of all the literary colleges in the state, held about three weeks ago, Dr. Egbert LeFevre, dean of the medical department of the New York University and Bellevue Medical College, read a preliminary report favoring an allowance for the completion in a literary college of a prescribed course, known as a "medical elective," to be carried out under carefully prescribed conditions. Perhaps I ought to say that in New York it is possible for us to do that sort of thing better than it can be done in most other states, because we have a force of twelve inspectors who can be sent anywhere in the state, at any time, to investigate the conditions existing in either the literary or the professional institutions, and, therefore, we can be sure that the course would be carried out as published.

Dr. LeFevre's suggestion was that the first year of the medical course be covered in the literary college, except in practical anatomy, and that the student who has completed that work in the literary college, because of his greater maturity and his better training, should be entered in the second year of the medical course, with a technical condition in practical anatomy. The student's superior training in other science subjects would enable him to work off this condition in one year and enter on the third medical year in full standing. This "medical elective" course, however, should be accepted only from those colleges where it is clearly evident that the work can be done as well as it can be done in a medical school.

This is only a tentative report, which has not yet been adopted. I think the tendency of our state is toward the adoption of something of the kind, but only under the most careful restrictions, the work of the literary college being subject to careful inspection, the equipment being adequate and the faculty being capable of doing the work.

Our statute passed in 1892 gives to the board of regents of the university of the State of New York the right to accept one year's work of this nature in the arts colleges for the first year in medicine. This law has been inoperative up to

the present time, because the regents have not formulated conditions under which such work could be accepted. Present conditions indicate that in the near future the regents may make suitable regulations and that this provision of the law may therefore become operative.

DR. W. J. MEANS (Ohio Medical University):—It seems to me that if Iowa, Minnesota and Kentucky have brought to this association a requirement that no time credit be given or that no student be admitted who has anything less than a college degree, we might consider the proposition and let our representatives go back with a like requirement from this association, but as long as we admit high-school graduates and ignore the college graduate it seems to me it is a question we must consider very carefully before we send out the message that we are going to adopt the same standards as those states have adopted.

I think that we have considered the matter from various standpoints and in such a clear way that it would seem impossible or show a lack of judgment to ignore absolutely the literary college man and say to him that he can not have a time credit at all for the work he has done in the literary school. The work done in the literary and in the medical schools should be compared. I have noticed that in many medical schools the work done in the scientific branches of the curriculum is done very largely by medical men who are general practitioners. Let me ask you whether a man in general practice is going to give the consideration to bacteriology, histology and other laboratory work that will be given to these subjects by the man who is engaged especially to do that work, a man who is paid for giving all his time to that work.

Two years ago, at the suggestion of the New York board, the Ohio Medical University refused to give any time credit for the baccalaureate degree. I consider that that is not a wise provision, providing the proper evaluation can be made of the baccalaureate degree. We found that in anatomy, chemistry and physiology, in order to get good and efficient work done, such as we regarded necessary in the medical course, we had to secure for teachers men who were devoting all their time to that work. We went to the Ohio State University and secured men who were teaching these subjects there. We could not afford to pay a man \$3,000 a year for teaching one subject, but we can afford to pay the university men for the work they are doing for us, compensating them for the time they give our school. Therefore we have the same teachers teaching these subjects in our school as teach them in the Ohio State University. A student graduating at the state university, one who has taken the work there, can not receive any credit from us for the same work done by the same men and in exactly the same way. That is not consistent.

It shuts out a number of our good medical schools from giving credit, and yet these same men receive credit in the university where the combined course is offered. In Columbia University a man can get both degrees in six years, but if he gets his literary degree at Columbia and goes to some other medical college for his medical work he must take four years more. That is wrong.

DR. GEORGE R. JENKINS (Keokuk Medical College, C. P. and S.):—I was very much pleased with Dr. Lee's paper and with what Dr. Guthrie said. I do not feel that it makes any difference to the medical schools or that it benefits them in any way to pass anything that the state boards do not vouch for. We must do just what the state board orders us to do. I do not think that it is in the interest of harmony to bring up this question now. I believe that this is in the interest of the smaller schools. What Dr. Lee said is true. It is culture that counts, no matter what business the man goes into. Law schools do not give time credits to men having a college degree. What a man has learned is his. His knowledge is worth that much more to him. He is a stronger man; he stands better than the man who has not a college degree.

DR. FRED C. ZAPFFE:—It seems to me that Dr. Waite has examined the literary college with an optimistic eye and the medical schools with a pessimistic eye. I, too, have examined a few medical colleges during the past three years, and I wish to say to their credit that they are not as bad as Dr. Waite paints them. They are all trying to do good work, at least the best they can do. It must be remembered, however, that this discussion should not hinge on the poor medical college or on the poor literary college, and there are plenty of the latter, as is admitted by college men, but on the average college. I have always maintained that a man should receive full credit for everything he has done, but judge him according to the same standard as you would every other man. If he can meet certain requirements which he is striving to meet, give him credit. If he can not, withhold credit. On that basis it is possible to do every man justice, and justice should always be done.

In reading over section 6 article 3, of our constitution, it will be noted that it is practically impossible for the graduate of a literary college to receive time credit on the medical course. That section outlines just what the medical colleges expect of the baccalaureate if he is seeking time credit. It does what Professor Herrick says we have not done; it lays down what literary colleges must do in order to receive credit for their work in the medical course. If a man can meet these requirements he is at present entitled to a time credit, but not otherwise.

Professor Herrick says that there are very few literary schools that are asking for a time credit, and that there are

few literary schools that are in a position to demand it. That, I believe, is true. Time credits have been granted to graduates of schools that are believed generally to give excellent courses, yet on inquiry I learn that the only subject taught by them that would entitle their graduates to any credit is general chemistry. Yet we have been in the habit of giving these men a time credit. It really handicaps such a man to advance him to the second year. It should not be done. On the other hand, if a man comes to the medical school with a credit in osteology, in general chemistry, in elementary physiology or any other subject of the medical curriculum he ought to receive credit for it, subject credit, and if the time which he saves by reason of such credits amounts to more than two-thirds or three-fourths of the first year it may be well to give him a time credit. That, however, is a matter to be determined only after careful investigation.

It seems to me that it would be proper and certainly a matter of justice for this association to set up a certain standard on which college courses can be evaluated, and appoint a committee whose duty it shall be to pass on the individual applicant for time credit, considering each subject and not the college that granted the degree. If the man and the college can come up to this standard, credit should be given. Give both an opportunity to qualify; put them to the test and base the decision on the merits of both.

DR. ROBERT REYBURN (Howard University):—We ought to require four years of study in a medical school. While some colleges are in a position to give instruction to advanced students, more than half are not. It seems to me that until the literary colleges show that they are entitled to a time credit none should be given. I hope, therefore, that we will retain the full four years.

DR. B. D. HANISON (Michigan State Board of Registration in Medicine):—I wish to discuss this question particularly from the standpoint Professor Wheelock took. The Michigan statute demands a minimum of four years in the medical course. According to that statute the board could demand five years if it saw fit to do so. The board also recognizes in its interpretation the two-year course given by colleges and universities, providing the regular medical course is given. It seems that the principal trouble lies in the fact that everybody approaches this matter from the minimum standpoint. We seem to think it a great disaster if we give an overflowing measure. As long as colleges exact the minimum requirements they think they are doing all that is required.

A dean of a Chicago school objects to an itemized standard of medical education from the point of view that one student is capable of carrying the subjects of histology and embryology in sixty hours, whereas the average student may not be able to carry them in less than 120 hours. Therefore the former should be allowed to carry the subjects in sixty hours.

He does not take into account that this student would gain more information on the subject than the average student by taking the 120 hours course. He might become an expert in these subjects and do good in that way. That is the same argument that is used by the fraudulent colleges in Chicago. They graduated people after one day's training. On that same argument some men were born to be doctors and did not require any training, and they graduated them. This statement that some men should graduate on a sixty hours and others on a 120 hours course seems to be not only a headstrong but an "armstrong" statement as well.

DR. DAVID STREETT (Baltimore Medical College):—Judging from practical experience, it seems to me that if we adopt any definite time credit it will be a backward step. We have had men with degrees and they were excellent men, men who knew their work well, and when they graduated they stood higher than their fellows. We give subject credit but no time credit. If a man has done good work in a college of pharmacy we do not hesitate to give him credit, on examination, for materia medica and practical pharmacy, but we never give that man any time credit. He has not had bacteriology or physiology and is not qualified to go into the sophomore year. Let us give credit for subjects but not for time. Let these men take the four years of work. We have had men from Lafayette and Dickinson who have done good work, but these men have come and taken the four years in the medical school because the courses in the literary school were not like those given by us. While the course in the liberal arts college are excellent, they do not correspond with the requirements and the environment of the courses given in the medical school. That has been my experience.

I am not prepared to say that there are colleges in this country that are prepared to do this work. It is possible that there are such schools, but certainly they are few in number and so far apart that it does seem to be a bad thing and an unwise thing to open the door for time credit of a year on the medical course until the time comes when the dean of the medical college can determine positively what colleges of liberal arts are entitled to credit. Until then no credit should be given.

PROF. C. JUDSON HERRICK:—With reference to the point made that the graduates of even the good literary schools do not come to the better medical schools with the equivalent of the work of the medical school, even when they have studied the same subjects in literary colleges under competent instructors, that is true. The medical schools have never formulated the courses which they offer; they have never correlated them; they have never formulated for literary colleges the character of instruction which they would like to see the literary schools follow. Therefore the literary schools have cut

loose from the medical colleges and they have gone ahead independently. Until that is done the literary colleges will go on and give courses in culture as they have been doing.

I do not think that the literary colleges in the middle West and in the eastern part of the middle West are wholly in sympathy with the resolution read from the colleges of the interior. Many of the colleges in Ohio do not ask for any time equivalent whatever in the medical course. If the medical colleges will define what work they will accept if done by us, we will take it up, but from our standpoint. We will do that work in our own way. At present, however, the literary colleges are not asking for any time credit, at least not all of them.

DR. CHARLES MCINTIRE:—If we take Dr. Lee's statement that general chemistry, physics and biology are to be excluded from the medical curriculum, then I thoroughly agree with what he said, but with the majority of the members of this association that is not the case, and consequently if a man has had this work in a literary college he should not be asked to do it over in the medical school.

One of the speakers said that neither Harvard or Johns Hopkins gave any credit for literary work. We on the outside who are looking on the general subject of medical education will hail with joy the time when this association will adopt the rule that no one but a college graduate can enter the medical school. It is not fair, however, to put the high-school graduate on a par with the man who has had a college course.

One of the gentlemen also said that the trouble with giving a time allowance would be that medical men would use that to foster their own interests. Is that not the trouble with the whole question? That there are those in our profession whom we can not trust as honorable men, men who try to do mean things. It is simply a matter of detective work to try and keep these men from doing things we are ashamed of.

I think we can say that brighter days are coming. After a while many of these childish things will be laid aside and we will treat the man as a man, and the college will say that it accepts this man's diploma because it is worth its face value. Over across the river is a theological seminary. Not long ago the Rev. David Gregg was installed as president. In his inaugural address he said: "The world's leaders, as a rule, have been college men." My plea is that we ought to embrace every opportunity to put school men into the profession, so that they may help in being the world's leaders just as much as being leaders in our profession.

DR. FREDERIC S. LEE:—I have followed rather carefully the outline of studies suggested by Professor Waite and Professor Herrick, and it seems to me that where there is so much difference of opinion, as one might also gather from the discussion, we are really nearer together than we think we are. We

all acknowledge that there are certain subjects that are essential to the study of medicine, the pure sciences. There are other subjects that ought to be treated as applied sciences, subjects which must be treated as medical subjects. When we analyze the discussion there appears to be quite general unanimity that the pure sciences should be taught in the literary colleges and that the applied sciences should be taught in the medical college.

PROF. F. C. WAITE:—What I said has not been as a representative of my college, but personally. We do not admit any man who has not taken three years in a literary school, subject to certain requirements. Another thing to take into account is that medical colleges are saying things against literary colleges for doing medical work. When this association takes the stand that the medical college should not do literary college work we will be on the same basis; but as long as medical colleges do as some did up to a year ago, give four hours of Cæsar, they can not adopt any hard-and-fast rule. As long as the medical colleges attempt and do teach subjects belonging to the literary college course, and teach them poorly, this association can not stand up and say that the medical work in the literary colleges is of no account.

It is entirely a question of simple justice to the man as to what work he has done. I am entirely against giving a student a year time credit for his baccalaureate degree, but he should be given subject credits so that he can complete his course in three years.

HOW CAN THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES BE OF GREATEST SERVICE TO STATE REGISTRATION AND EXAMINING BOARDS?

DR. B. D. HARISON.

DETROIT, MICH.

The real question at issue is the relation of the boards to the medical colleges, and it becomes necessary, therefore, to give some sort of a definition as to what the boards represent and what the colleges represent. The primary object of the legislature is to supply qualified medical practitioners to the people, and that is always the object that the boards must have in view. Of course, this implies that, as the world progresses, the qualifications to practice medicine shall be greater, so that boards have to contend with the gradual raising of the requirements and the enforcing of them.

Boards represent legislative action and the colleges represent more nearly the product. The colleges are, therefore, responsible for the product. The board is responsible for the inspection of that product, and when such associations as the Association of American Medical Colleges evolves some practical plan it is practical for the boards to take the matter up and pass on it. It is not usual for legislatures to pass any legislation whatever on any question involving the prosperity or necessities of the people unless there is some formulation of its wants, and when they go before the legislature with a well-expressed formula of wants then the legislature will take the matter up and either pass or reject it. Boards can not be expected to pass on advanced standing unless the associations bringing the matter up have some definite formula to submit to them. And until such time as the colleges agree on some general plan for giving or refusing advanced standing very few boards will legislate on the subject.

According to the constitution of the states, the boards can not recognize officially any association. However, this association can act in an advisory capacity, but no more. The boards have to consider questions from the standpoint of the different colleges. They can not tie themselves up to any one school. They must be impartial. And while an expression from this association is of material benefit to the boards, yet they can not take any action unless they have an expression from other schools represented in law, and for that I reason I would advocate the appointment of a committee by this association to meet with a similar committee of the Institute of Homeopathy and the National Associations of Eclectic and Physiomedical Physicians. A year or two ago the Institute of Homeopathy appointed a committee to meet with this association, and it would probably agree with everything that has been done in advance by this association. We have found in our board work that other schools are most liberal in adopting advanced standards and doing everything possible for the advancement of the practice of medicine. We have met with no difficulty whatever from the sectarian schools, so that I think a plan having in view uniformity of action by the several schools would meet with success, and the subject could be brought before the boards more practically for action.

Last year you established at least a suggestive standard of preliminary education consisting of 30 points, a point representing half a unit, or two of the New York counts. My criticism of that standard is that I do not see the necessity of creating another unit basis, such as the point. We ought to have some uniformity in that respect. It is very puzzling to boards to go into the unit, point and count systems. One system should be adopted by this association, and I suggest that the oldest system, the count system, is probably the best. The New York count system has had a great many years of trial and it has not been found wanting. I understand that the board recently amended it, making it much more accurate. They (the regents) have adopted as a count a recitation once a week for a school year. Five recitations a week would represent five counts. The total number of counts in the New York system will then be changed from 48 counts to 60 counts. The count system would be acceptable to everybody. In Michigan we have the unit, and we are in a way tied to it because the state university and the school system have adopted it. Yet if it is possible for us to change to the count basis, we would do so in the interest of uniformity. I think it would be a great point to get such uniformity.

In addition to this, New York has a better opportunity to establish this system throughout the United States. The regents are in correspondence with every other board. The matter they send through the mails is many times greater than that sent by any other state and they have a better opportunity of demonstrating what the count is or what the point is than has this association. We have several associations and boards working on different bases, and that is puzzling, especially to students who can not understand what these things stand for. The count is the lowest fractional basis established, and that in itself is necessary. It is just as necessary to have an exact unit system as it is to have our currency system, the cent representing the smallest part of a dollar, than to have a dollar without any fractional part of it. The unit represents a whole year's work, while the count represents a single recitation during the whole year.

Another criticism of the standard you adopted last year is the fact that you do not emphasize the absolute

requirements of English, mathematics, Latin and physics. The standard is too flexible. It destroys the symmetry of the educational scheme which has in view the absolute requirements of the essentials, the fundamentals of primary education; and these should be insisted on. I understand that some time in the near future the New York Board of Regents will lay special stress in their preliminary standard on the absolute requirements of the four subjects I mentioned. and the fact that two of the largest states are practically agreed on these standards and will enforce them will have a great deal of effect on the future.

I was very much pleased, indeed, and I think many boards were from the administrative standpoint, that the association last year adopted an itemized standard of medical education. That was a step in the right direction. A standard requiring four years of so many months each means nothing at all. It may mean much work or nothing at all. Therefore, your action is a commendable one.

I have already spoken a little about advanced standing. Some of the state laws do not permit it, and the belief here is that it should not be permitted. We are hewing too close to the minimum rather than to the maximum standard. It is better to have the measure overflowing than to have just a little short.

The most important subject to which I can direct your attention is for you to live up to your constitution, your rules and regulations. The association can only obtain a proper standing before medical boards by adhering to the policy of living strictly up to its rules and its ideals. It would be far better for the reputation of this association if it were composed of only fifteen colleges that live up to the rules than a membership of sixty that do not live up to them. By dropping from membership those colleges that do not live up to the constitution is the only way by which you can obtain material recognition from state boards. The fact of a charge being preferred against one of the members and the investigating committee reporting that the charges have been proven, and then have the matter left open or the school whitewashed, destroys almost absolutely any influence that this association has with medical boards.

Not so many years ago that was done and our board would not accept anything as a recommendation from

the Association of American Medical Colleges: It simply refused to believe that there was any virtue in this association. If you establish a standard and pass a rule, live up to it. Show the boards that the association is not for any other purpose than the advancement of medical education so that the boards can pass judgment.

The boards can not recognize the association officially, because it is not in their power to delegate their functions to any one; consequently, they are unable, from the fact that a medical college is a member of this association, to recognize it on that ground alone, although the fact of membership might form important evidence in its standing and intentions.

I would also suggest the advisability, if it is possible, that the secretary, when he inspects the schools in the different states, to visit the medical registration office not only for the purpose of obtaining information, but also for the purpose of giving information. He obtains much useful information that the board can not get; therefore, a personal interview with the secretary would be most beneficial in connection with the objects of this association.

From the standpoint of one interested in this association our board members particularly have been especially well pleased with the activity and good work done by the secretary. They have every confidence in his ability and in his energy, and they trust that he will be provided with means and the opportunity to make his inspections of colleges once a year. That will be one of the most useful things for the boards that you can do.

HOW CAN THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES BE OF GREATEST SERVICE TO STATE REGISTRATION AND EXAMINING BOARDS?

DR. BENJ. F. BAILEY.

LINCOLN, NEB.

In the consideration of the question of the relation of the Association of the Medical Colleges to state boards there is need of conservative wisdom, for in this relation lies the security of the moral status of the profession.

In the relationship between these two organizations, if they may be so called, is that balance which may prevent our resting under the charge of commercialism or being guilty of ultra-rational splitting of hairs in the establishment of a high medical standard. The medical profession is the only profession that may be justly said to have attempted to legislate itself out of business. This has been done in the laboring for statutes for the prevention of disease and in sanitary work, and all unselfishly and in the interests alone of public health. The profession in this work has been simply true to its inheritance and to its ideals. In this work the charge of commercialism or selfishness has been impossible, but the work that is now so prominently before us and that is no less our duty, namely, the raising of the medical standard, must eventuate to an extent in the lessening of medical colleges and medical graduates; hence, we may have imputed to us a desire for a lessened profession for reasons of thrift.

I am impelled, however, to believe that in our own hearts the initiative for this movement is for the protection of the public and the prevention of a financial and mental robbery of our young men and women, who have many times, after much self-sacrifice, found that they have largely wasted their three or four years in a medical school because they were dazzled to a matriculation in such institution by catalogue representations which are incorrect and misleading, and which, when placed by the profession under the light of publicity, are noted only for their falsity. Therefore, by a calm, dispassionate but judicial consideration of this subject the public may learn that it is no less an honor to sacrifice, as many a college is doing to-day to save our young men and women from robbery and our people from imposition, than it is to legislate against contagious and avoidable disease.

This publicity of effort is necessary, inasmuch as without public opinion, which is a nation's greatest army and the people's phalanx of defense, we may meet and meet, legislate and legislate, but we can not accomplish either regulation of the colleges or the statutes of the states. The reason for this is that, notwithstanding the high ideals and the successful, honorable and self-denying work of the profession, it would be more than human were the commercial instinct to be entirely dor-

mant. Due to this commercial instinct are the two dangers and stumbling blocks which it must be our effort to overcome. The first danger is the possibility of modern colleges that are insufficiently equipped, for which there is no public demand and which seem to have been born and to have lived only that certain men may be identified with them for purposes of public notoriety and that this may possibly redound to their financial benefit. In order that such institutions may live it is necessary, first, to have the support of their state authorities. Second, it is necessary that they should have students, even if they must resort to inducements that are impossible for colleges that live up to the public standard. How shall we prevent the possibility of the protection of these medical home-industry institutions through the abuse of political power? And, second, how shall we prevent the weakening of the best for the nourishment of those unfitted to thrive?

You remember Malthus investigated methods of securing the proper balance in population and proposed the introduction of social and moral restraints, but not the harsh economic theories that have grown out of them. His memory has suffered from misrepresentation, whereas it is true, as said by Kirkup, that Malthus gives no sanction to the theories and practices currently known as Malthusianism. Therefore you will readily recognize that though we need in our profession a Malthus, we must be wise and judicious or become, as did Malthus, more the object of ridicule than the subject of investigation and respect. For this reason it is unwise for us to attempt to educate the public as to units and points. The masses would not grasp it. It is sufficient for the laity to understand that a certificate from the state is an assurance of an acquired fitness. I say acquired, for though we may throw about our people and our students all the safeguards of conscientious effort, we can never guarantee the innate clearness of perception, the analytical mind.

These points can never be the subject of statute or the result of education, but we must trust to the teacher who now takes the place of the erstwhile preceptor, whose duty it is to discourage students who, though they may be brilliant in certain directions, yet evince a lack of the mental trend that can make it possible for them to apply wisely the results of medical education. It is

American for the people to respect the stamp of their own government, be it either federal or state, for it is their own, and a sense of possession determines a protectorate and hence a respect. It has not been altogether the effort to provide free education that has developed to such an extent the public school and university, and that is fast decreeing the end of unendowed or unfair private and denominational schools, but to no small extent the recognition by educators and by the public that the people will take advantage of their own with a racial or national pride and will protect it to the very banks of the Rubicon.

Assuming this to be true, we may be permitted to ask attention to the next premise, namely, that the medical profession does not command the respect and standing in the public eye that falls to the lot of the legal profession, and this for no other reason than the well-known fact that for generations the legal practitioner has been admitted to practice only by the consent of the state, while until within about thirty years any one who possessed a sheepskin with gold seal and blue ribbon could lead the sick and helpless, even though it be down to Jordan's brink. The fact being evident that in the past our government has given us respect for its own and our own, it behooves us to decipher the "handwriting on the wall" and to recognize that the same paternalism that makes it incumbent for the government to furnish and oversee the general education and the legal education must soon lead the public to insist that it assume, too, the duty and responsibility of the medical education. Note the desire of states to affiliate with their universities a medical school, and note—and I honor their wisdom—the anxiety of medical schools to become affiliated with state institutions.

The encouragement of this natural and national trend will obviate the necessity of the protection of the home medical industry, for it will do away with the need of the commercialism that is a necessity in the private institution and that to insure its own sustenance must provide for its own protection through a greater or less degree of political control, and political control, when in the interest of a private business, be it of whatever nature, means political corruption; and what state board, think you, gentlemen, will be allowed to do its work unimpeded while this condition lasts?

But state medical education, though to my mind ideal and as certain to come as experience is to teach, is yet a thing of the future, and until then we must take such strenuous steps to suppress the commercial; to raise the ideal and hasten, by public conviction and by a possibility of survival only of the fittest, the coming of absolute state control, so uniform in character that the certificate of any state in the Union shall entitle to practice from the Atlantic to the Pacific and from Canada to the Gulf of Mexico and, perchance, wherever the United States are held in common respect, and that is all the wide world over.

This power is in your hands, gentlemen, and you have already begun your work. I even wonder if you yourselves realize how wisely. The beginning was when you adopted the matriculation blank. I would suggest, however, that this blank be certified to by the executive and secretary of the college reporting, and acknowledged before a notary. I would have misrepresentation a matter of perjury. So far, so good; but these blanks prepared by the association of colleges should be issued in form and be self-binding. They should not only be issued for the year of matriculation, but for each year of the course, showing each student of each year, the branches of study taken, the hours observed and the final marks. A copy of these blanks should be in the hands of the secretary of the association and in the office of the secretary of the examining board of every state. This would make it possible to know when our applicant presents his credentials for examination or for reciprocity exactly what his record has been through all his educational days, and will make it impossible for any institution with the commercial instinct unduly developed to escape detection or to retain recognition. That the adoption of this method would insure detection of imperfect work and that as reports must be certified to and acknowledged before a notary, false reports would involve a charge of perjury, which charge, on proper proof, would, I believe, be sustained.

Thus to certify to a false report would carry its own punishment. There remains the institution that certifies to the truth, but fails to carry out the recognized standard curriculum. Such an institution should at once lose its standing in the association of which it may be a member, and it should be forced to do better work

or go out of existence by all associations of medical colleges taking action to refuse to recognize or admit to advanced standing students from any institution in any state that permits an institution with deficient curriculum and equipment to exist within its border. The state boards working with the association of colleges shall refuse to reciprocate with such states or to recognize students for examination from any institution in such state.

In order that this may be even a more perfect system, examination marks with the rules of allowance on account of years of practice should be made a part of every reciprocal application blank.

How may this be brought about? First, by your association adopting a by-law providing for such a system, and issuing a request to every state board that whenever the statute will allow they coöperate with you in this effort by passing such standing rule for the government of the work of the board as shall include the rules suggested, and that in every state where the statute is incompatible with such action by the board it be urged that the statute be so amended as to give to the board discretion in its rulings. This method, as suggested, offers to the profession a control from both sides. First, the associations will be able to check up and control the states; second, the state boards will be able to check up and control the associations, and together there will be the attainment of sufficient strength to hold the rein over medical or other politicians. In short, to make it impossible for an institution to do its work at all unless it does it well and in keeping with the public demand for a high and standard curriculum.

You can further help the state boards to do better work by hastening the day when civil service rules shall apply to state boards, at least to such an extent as to remove appointments from political control. Does this association or any member thereof hesitate, does a member of any state board here represented hesitate, lest these methods work a hardship?

The strictest discipline and the sternest statute make the happiness of him who is conscientious and sincere in his work. He who would willfully fail in this we need not consider. And is our work necessary? Is it worth while? Shall we sacrifice and, perchance, for a time bring odium on ourselves for a principle? Come

with me back a quarter of a century to my old New England home, nestled among the hills of New Hampshire, and you may seem to hear with me the cry of the wee bairns of a mother's household as they were lost in the great labyrinth of medical ignorance while the Minotaur of disease destroyed. All over the world the majority seemed to bud on earth, only that they might blossom in heaven, until the very dews of night have been as tears of nature weeping for her best beloved. But the march of the destroyer has been stayed; the contagious disease is ceasing to be a terror in the life of those who love; the scourge no longer sweeps the earth uncontrolled; the history of a plague no longer needs to be written. Ah, friends, every star in the heavens seems to shine as a beacon of hope as it illumines the altruistic work of a noble profession, to which it is my lifetime pride to belong, and by its work the time shall yet come when sin shall be crushed by conscience, ignorance illumined by education, and disease shall stalk not as the result of the avoidable, and the wee bairns shall grow and wax strong until their passing shall be as the bearded grain in the full maturity of a perfect life.

HOW CAN THE ASSOCIATION OF AMERICAN
MEDICAL COLLEGES BE OF GREATEST
SERVICE TO STATE REGISTRATION
AND EXAMINING BOARDS?

CHARLES F. WHEELOCK, B.S., LL.D.

ALBANY, N. Y.

I am not a member of an examining board or of the faculty of a medical college; I am not even a doctor of medicine; and because of these facts I feel that I am somewhat out of place in this meeting. However, I have a relation with the examining board in the State of New York. As you doubtless know, we have in New York State a professional board, appointed by the regents, that prepares the questions and rates the answers of candidates for license to practice, while the administrative work of conducting the examinations, recording the results and issuing the licenses is done by other appointees of the Board of Regents. It has fallen to

my lot to look after this administrative side of the work for some time, and I am, therefore, possibly, qualified to discuss some of the questions.

Among the things that seem to me important for examining boards the first thing is that they should speak the same language; by that I mean that they should speak in terms that are generally intelligible. Dr. Harison has already spoken of this matter very clearly and very effectually, and it seems to me that this association ought to take some steps toward establishing such a vocabulary of terms and one that will be understood in all the states and by all the boards. It is no easy matter to understand one another so long as one says "counts," another "units," another "points," etc. As Dr. Harison has said, the count system in use in New York State is the oldest and perhaps the best established. It has been adopted by New Jersey and is in general use in Pennsylvania. I would be very glad, of course, to see that adopted throughout the United States. Our most difficult problems do not come from the candidates educated in our own state, but from candidates educated in other states, whose qualifications may be just as good, but which are liable to be misunderstood because of the difference of terms. These are the cases that take up our time. We hope that something may be done to improve the condition.

We have recently revised our work and have adopted as the "count" one recitation a week for a school year. This makes it the simplest system now in vogue. I ask you to consider its general adoption. You have done well in formulating the medical course, in expressing the work in the number of hours of study required in each of the various topics. We should do a similar thing with the preliminary education.

This association acting as an association, and the separate members of it acting as individuals can do much to aid state examining boards by furnishing them with reliable information. It has been said here this afternoon that there are medical schools in this country that are not up to the standard. I may add that there are also high schools that are not up to the standard. There are high schools that grant elaborately decorated diplomas that can not be accepted as representing in any sense a satisfactory high school course. If you know of any such in your locality, we in New York

would be very glad to get information concerning them. We have a card catalogue in which we have registered the principal high schools of the world. The list is continually changing—we are adding to it, we are taking from it; we shall be very glad to receive information from any source that will enable us to make this list more complete than it is. Essentially the same thing is true concerning medical schools. The degree of doctor of medicine does not always represent what it should represent. If it did there would be no need of a state examining board. The very existence of examining boards is evidence of the fact that all medical colleges can not be relied on. There are men engaged in educational work—in secondary education and in professional education—who must be watched. That being the case, the examining board comes into existence, and the examining board needs information.

Again, this association can help examining boards by giving them moral support. After all has been said and done, the examining board merely represents the average opinion of the state in the standards that it sets. A state board can not put the standard very much higher than the consensus of the opinion of well-informed people of the state desire it to be. We in New York are very fortunate in having a non-political board, appointed by the Board of Regents on the nomination of the State Societies, but even in our state and with such a board we can not establish standards that are very much above the standards that will be agreed on by the colleges and medical schools of our own state. The moral support of an organization like this, which does so much toward making public sentiment, will sustain examining boards in their efforts to maintain standards.

INTERSTATE RECIPROCITY AND MEDICAL COLLEGES.

M. M. HAMLIN, M.D.
ST. LOUIS, MO.

I esteem it not only a great pleasure but an honor as well to meet with you and to greet you in the name of the Missouri State Board of Health. I regret, however, the absence of Dr. Johnston of Kansas, who was to have

preceded me on the program. I am at a loss to know why my friends on the Missouri Board saw fit to thus honor me unless it was for the same reason given by my uncle for his election to the Arkansas State Senate. Some one said to him: "Mr. King, how did it happen that the people of your district sent as ugly a man as you to represent them? Is everybody in your district as ugly as you are?" "No, sir," said he, "there's some mighty pretty people down there, but I was the only one that knowed the way to the Rock."

Mr. President, I have enjoyed listening to, and have been greatly edified by the many splendid addresses that have been delivered here to-day. It is certainly uplifting and helpful, it broadens our views and gives us higher ideas to mingle with and listen to the exchange of ideas by the ablest men and leaders of our noble profession. I desire to say just here that the idea of higher medical standards so ably advocated on this floor to-day is fully concurred in by the Missouri State Board.

Reciprocity is the application of the teachings of the Golden Rule: "Do unto others as you would have them do unto you." This, as applied to individuals, embodies the entire code of ethics. Interstate reciprocity is the embodiment of the same doctrine, but before this simple rule of action can obtain conditions must be similar. For instance, in the vast majority of the states there is a statutory requirement that an applicant for registration must be a graduate and he must present as evidence of graduation a diploma from a recognized college before he is permitted to take the examination. In Missouri our law reads: "All persons desiring to practice medicine or surgery in this state . . . shall appear before the State Board of Health at such time and place as the board may direct, and shall there be examined as to their fitness to engage in such practice. . . . They furnish satisfactory evidence of their preliminary qualifications, and shall also furnish evidence of good moral character." Thus it will be seen that in Missouri any one may take the examination without the formality of the presentation of a diploma, while in our sister states a diploma from a medical college that is recognized by the board to which application is made is a primary and positive requirement. Hence Missouri, by reason of her requirements not being similar to the requirements

made by Illinois, Wisconsin, Kentucky, Iowa, etc., is not in a position to ask reciprocity of these other states.

While reciprocity between the states is a thing we earnestly desire to attain and while our colleges, our societies or associations, state and national, may, and I have no doubt will, talk about, work for and resolute in favor of reciprocity, it is all of no avail.

Finally, it is our privilege to agitate, to educate, if you please, our people up to the point of acting; after all, we must not lose sight of the fact that the *power to act* lies with the Boards of Registration or the Licensing Boards. If these boards favor reciprocal relations between the states, our task is an easy one; if, perchance, these boards are opposed to or are only lukewarm on the subject, our work then assumes quite a different character. Parenthetically I may here be permitted to remark that not *all* the members of *all* the boards are appointed because of eminent fitness from a professional standpoint, but nevertheless they have the power to act in the premises and to say to us: "What are you going to do about it?"

In this extremity we are called on to revise our resolutions and, if possible, extricate ourselves from this embarrassing position. What shall we do?

Our remedy is in state legislation and to that only can we look for relief from our present predicament. I suggest that this association appoint a competent and judicious committee whose duty it shall be to formulate a law that shall be universal in all points of requirement and with a reciprocal clause attached thereto, and that a copy of same be furnished the state associations of all the different schools of practice in all the states, with the request that they all work in harmony for and secure the enactment by the legislature of the same in each and every state. Then, and not till then, can we have interstate reciprocity.

But it was not my purpose, nor do I intend to attempt an elaborate discussion of the subject of reciprocity in general, fully expecting my colleague, Dr. Johnston, of Kansas, to cover this phase of the subject, but I desire more especially to plead for a provision in our laws to cover the case of the "Old fellows," like myself, and yourself, who, complying fully with the laws then in force, commenced practice years ago when only two years were required for graduation. A case in

point: A. Dr. H. graduated in New York in 1874 on two years' attendance, removed to Michigan; registered there under the then existing laws; had a large practice for nearly 40 years. Now he applies to another state for registration under the reciprocity clause; he is refused registration because he had only two years to his credit before graduation.

I desire to commend the arguments of Dr. Harison of Michigan, in discussing this particular case, that such a ruling by a board would shut out of the state such men as Nicholas Senn, J. B. Murphy and nearly all of the most prominent and best men in the profession to-day. The recent graduate with his four years' diploma, but without experience, is granted reciprocal registration, while the old veterans who have borne the burden and the heat of the day for many long years are denied the like privilege. Reciprocity that reciprocates is desirable, but reciprocity for the old physician is his only salvation.

THE REPORT OF THE COMMITTEE ON MEDICAL EDUCATION.

The trend of medical education has been steadily upward and toward uniformity. The action taken by this association at its last meeting has been commented on very favorably by state examining boards, inasmuch as it is the first step taken toward establishing a definite basis for accrediting entrance requirements, for regulating the length of the college term, and for providing a curriculum which is proving itself more satisfactory than it was supposed it would be at the time of its adoption. Medical educators have always felt the need of a system of accrediting, such as is used by literary institutions, for the purpose of determining definitely the amount of work done by a student in each year. The present curriculum and term requirements make it possible to establish a study unit, and your committee is now engaged in that task.

Reciprocal Registration.

We have heard much during the year about reciprocal registration by state examining boards, but the chaos existing in educational circles seems to have made it extremely difficult to arrive at an equitable basis of reciprocal registration. The standards established by the association will facilitate such an arrangement, and several state boards have made it the basis of reciprocity.

Recognition of Work Done.

The Council on Medical Education of the American Medical Association apparently also appreciated the work done by this association, because they adopted, in part, its requirements. The standard requirements now recommended prerequisite to the practice of medicine consist of five cardinal points as follows:

1. Preliminary requirements to be a high school education or its equivalent, such as would admit the student to one of our recognized universities.
2. Preliminary requirements to be passed on by a state official, such as the superintendent of public instruction, and not by an official of a medical college.
3. A medical training in a medical college, having four years of not less than thirty weeks each year of thirty hours per week of actual work.
4. Graduation from an approved medical college required to entitle the candidate to an examination before a state examining board.
5. The passing of a satisfactory examination before a state examining board.

However, these requirements are not quite as high as those of this association. The council asks as a preliminary requirement a high school education or its equivalent, without specifying how many years must have been spent in acquiring that education. It is well-known that four-year high schools are comparatively few in number and are limited, practically, to the north central states. Two and three year high schools are numerous, and a diploma from these schools will admit the holder to a university in many states of the union. Therefore, our requirement of a four year high school diploma is decidedly in advance of the council's requirement. In the third requirement, that having reference to the length of the college year, no mention is made as to whether the thirty weeks include holidays. The association requirement specifies thirty teaching weeks, which, as is well-known, really implies a course eight months in duration. The fourth and fifth requirements refer to matters that are regulated by state examining boards, hence do not come within the province of this association.

Length of College Sessions.

In the report made at the Atlantic City meeting of this association your committee referred to the indefiniteness of the term months, as used in connection with the length of the college year. A study of the catalogues of 116 regular medical colleges discloses some very interesting points in this connection. By computing the actual number of days spent in teaching, beginning with the day on which the opening address is delivered, and ending with the Saturday before commencement day, the result is as follows: Only 1 college teaches more than 225 days; 1 college teaches only 134 days. Seven colleges teach more than 140, and less than 150 days; 2 teach more

than 150 and less than 160 days; 6 teach more than 160 and less than 170 days; 17 teach more than 170 and less than 180 days; 25 teach more than 180 and less than 190 days; 31 teach more than 190 and less than 200 days; 14 teach more than 200 and less than 210 days; and 8 teach more than 210 and less than 220 days. Two of the so-called night schools teach 240 days, while 2 teach less than 230 days. However, it must be remembered that the day of the night school is only three hours long, or about one-half that of the day school. About 76.7 per cent. of the 116 colleges, from whose catalogues it is possible to make the compilation, teach at least 30 weeks, or 180 days.

This is a matter of considerable importance, one of which cognizance should be taken by state examining boards when a medical school is asking for recognition. Some schools schedule more holidays than is done by others, therefore they give less instruction. It is very evident from all this that 30 weeks of instruction is none too long, because we all know that unexpected holidays are announced which cut down the time devoted to teaching. A college teaching less than 180 days ought not to be allowed to exist, and one teaching only 134 days has no excuse to exist. The short term colleges are nearly all situated in the southern states, where it is claimed that longer sessions are impossible because of the climate.

Evolution of High School Work.

Your committee undertook to evaluate the work done in the high schools of the different states. Inquiries were addressed to the superintendents of public instruction, but most of these gentlemen were unable to supply any data as to the work that is being done in the secondary schools of their respective states. However, through the courtesy of university authorities, it was possible to secure the desired information from a number of states. After sifting this down, your committee came to the conclusion that high school education is in as much of a muddle as medical education is said to be. The credit, the study unit, is supposed to stand for not less than four recitations a week throughout the year, but the length of each recitation varies from forty to fifty minutes, and the length of the school year varies from thirty-two to forty months. Therefore, it is safe to calculate on four years of eight months each, or 32 weeks, not more than twenty recitation periods a week, each period of forty minutes' duration. Any school giving less than four years of instruction must not be accredited for more than the exact number of hours taught.

It is impossible to determine the length of the high-school term without definite inquiry, because the diploma granted by a two-year high school looks exactly like that granted by a four-year high school. High-school diplomas bear investigation, especially if they are to be accepted as entrance creden-

tials to medical colleges. State examining boards apparently have overlooked this matter, because they require only a high-school diploma as a preliminary qualification, and some medical colleges are taking advantage of this and are matriculating students who are graduates of two- and three-year high schools.

Credit for Baccalaureate Degree.

Another matter which has been agitating medical educators and also literary college men is whether or not any time credit should be given to the holder of a baccalaureate degree. The sentiment of the majority of medical colleges is against giving any such credit. Your committee on the evaluation of college work, in its preliminary report, published in the August number of THE BULLETIN, dealt fully with this matter and the report made to-day is supplementary to the first report.

The baccalaureate degree does not appear to represent any more than any other degree. It bears investigation. There is no intention to criticize the work done by the literary colleges, but rather to point out that they are not giving sufficient medical work to entitle their graduates to a time credit in the medical school. True, there are some colleges that offer more than half of the work done in the first two years of the medical course, but they are few in number, and, therefore, do not enter into the question to a very great extent. The graduates of the majority of literary colleges have not had more than the first year in chemistry; a few have done some general work in embryology, histology and physiology. Some of the better colleges are also offering bacteriology and osteology. There is no doubt but that a man should receive full credit for all work done prior to entering the medical school, but the sentiment seems to be against allowing him to complete his medical work in three years, because he is thereby crowded almost beyond endurance in his first year in the medical school, and sometimes also in the second year. However, this is a matter which requires thorough study before any plan can be evolved which will prove satisfactory to the literary college, to the university and to the medical college. Arbitrary rulings are likely to do a grave injustice to deserving men and the college from which they come. This is a mere outline of this important question, and it is presented solely to call attention to it. Good work is deserving of recognition.

College Data.

Although a number of colleges have been merged, the total number of medical schools in the United States is the same to-day as it was a year ago. Newly organized colleges have taken the place of those that dropped out of existence. There are now 127 regular medical colleges, 3 of which are night schools; 18 homeopathic schools; 10 eclectic colleges; 3 physiomedical colleges and 1 college which teaches all the pathies. There remain 3 colleges which admit women only, and one of these is

a homeopathic school. There are 6 schools admitting only negroes, and 2 of these are practically out of existence. Only 6 colleges teach the first two years of the medical course, although 19 colleges grant the two degree of B.S. and M.D. in six years, 6 in seven years and 1 in five years. Twenty-nine schools require four years in residence, irrespective of the qualifications possessed by the student previous to entering the medical college. Three of the homeopathic colleges are a part of a state university, 18 regular medical colleges are state university schools, 31 are the medical departments of universities and colleges other than state institutions, 26 are affiliated with a literary institution and 48 are so-called independent schools, that is, they have no connection with any literary institution.

Your committee also endeavored to ascertain the number of medical students who are graduates in arts and the number of postgraduates taking courses in the medical college, but comparatively few catalogues contained the information from which these figures could be compiled. However, from the data at hand it is safe to say that about 2 per cent. of last year's graduates had previously graduated in medicine and that about 25 per cent. of the total number of students were graduates in arts and science. This awakens the thought that it would be well if medical colleges were to publish in their annual catalogues all the information which could be utilized for statistical purposes, because only in that way can we arrive at any data which will be of use in settling such knotty problems as those which now confront us.

Respectfully submitted.

FRED C. ZAPFFE.

REPORT OF JUDICIAL COUNCIL.

The work of the Judicial Council during the last year has been largely one of answering communications, giving opinions on the construction of the constitution and by-laws and assisting the secretary in examining colleges holding membership in the association.

Disposal of Applications.

A number of colleges have made application for membership and were subjected to a careful personal examination by some member of the committee. The following is a report of these applications: The Medical Department of the University of Oklahoma was examined by Prof. H. C. Ward and found, according to his report, exceptionally well equipped to teach the first two years of a medical course. On his report the council recommends that the medical department be admitted to membership in the association, with a recognition of the first and second years. Application was made by the Louisville Medical College and the school was examined by Secre-

tary Zapffe. On his recommendation the council recommends the college to full membership. Applications of the American College of Medicine and Surgery of Chicago, the College of Physicians and Surgeons of Los Angeles and the University of North Dakota were considered by the council and a postponement of one year is recommended. We have notifications of other applications for membership, but they are not in shape to be considered at this meeting.

Charges.

There were no charges made against any college of the association during the year.

Opinions.

The chairman believes from the number of communications relative to the construction of various sections of the constitution that there is a general desire on the part of the colleges to abide by the rules and take no advantage of technicalities. A synopsis of the communications received by the chairman of the council and his opinions are herewith submitted:

California Board of Medical Examiners.

W. J. Means, M.D., Chairman Judicial Council Association of American Medical Colleges.

Dear Sir:—The two inclosures will serve to explain the case of an applicant for the certificate of this board, who presents the diploma of the college very appropriately named "Rush." This board will probably reject the diploma and the application. As the case will go to me for an opinion, I would like to ask you if Rush should not have compelled the applicant to take two full years instead of five quarters.

We also have the case of an applicant taking one of his courses in two different colleges, beginning the course in the one and finishing it in the other. I fail to find anything in the constitution and by-laws of the association prohibiting this. Another question is whether an A.B. and graduate in pharmacy or dentistry is entitled to a credit of two years on his medical course or to one only. You speak of "additional credit" on the course.

(Signed.)

Respectfully,

WILLIAM C. TAIT,
Board of Medical Examiners.

Dear Sir:—(1) Under the rules of the association the graduation of Dr. Sloan could not be considered irregular. The conditions and failure for which he was turned down in the University of Michigan were removed in the first quarter of his attendance at Rush. He then entered on his fourth year and took practically, according to Dodson's record, twelve months. Rush divides the school year into terms of three months, and is in session the year around, so I am inclined to the opinion that so far as the association's rules are concerned Sloan's diploma is regular.

(2) Credit may be given to the holder of a bachelor's degree from an approved college or university for any work in the medical branches which he has successfully completed in his college course, only so far as it is fully equivalent to corre-

sponding work in the medical curriculum. No time credit is given for a bachelor's degree, pharmaceutical degree or dentistry unless they represent fully the equivalent of the first year's work in medicine. Section 6, article 3, of the constitution and by-laws sets forth fully the credits that can be given.

(3) There is nothing in the constitution and by-laws of the association preventing a student from attending a semester in one college and a second semester in another college and get credit for a year's work, providing the student has proper credits for the first semester to meet the requirements of the second college. Respectfully submitted.

W. J. MEANS,
Chairman Judicial Council.

University of Nebraska.

Dear Dr. Means:—Permit me to ask your decision on the following points in our new constitution:

(1) The entrance examinations for the university are practically state examinations. They are by law held at the university the three days preceding the formal opening—this year, September 19 to 22. Each subject is under the control of the university department representing that subject, i.e., Latin controls the Latin examination; mathematics, history, etc., similarly. Our faculty is so large that I do not know personally many of the gentlemen in charge. On the other hand, they do not know for what school in the university the candidate is applying. The superintendent of public instruction accepts these examinations. I do not see under state law how he can modify them. What will be necessary to make them conform to article 3, section 2, of the new constitution?

(2) Are the figures in section 6, article 3, relative or absolute, i.e., if a man brings thirty-eight hours in physics, 150 in chemistry, etc., must he be debarred? Our curriculum corresponds to the one adopted by the association and our rule as regards the advanced standing reads as follows:

"Graduates of recognized universities or colleges are given credit for any work in the medical branches which they have successfully completed in the college course and which is the full equivalent of corresponding work in the medical curriculum. Such students may receive the medical degree in not less than three years, provided they complete the remainder of the regular medical curriculum within that time."

(3) We exact from students no examination fee, such as is required in many schools, but the regents have established a rule that a student desiring a certificate of credit and honorable dismissal to another school can secure the same only on the payment of a fee of \$5. This apparently conflicts with by-law section 11. As our regents have adopted the general policy of making the students pay for such certificates in all schools, I think it would be difficult to persuade them to alter their policy in this respect, which they would regard as a pure matter of business organization.

(4) Am I correct in believing that there is no required order of subjects or assignment of the same to one year rather than another, and that, for instance, a student entering without the right to any time credit, but yet having completed some freshmen subjects to the satisfaction of the instructor, might be taking in their place sophomore subjects and thus ultimately

might secure extra time to devote to clinical branches or specialties? To make this point perfectly clear, let me suppose the extreme case. A man having completed two years in the scientific course of a thoroughly high-grade institution comes to us having completed each study in the freshmen year except human anatomy; not only his credentials, but the examination which he is willing to take, demonstrates his mastery of these subjects; although enrolled as a first year's student, he is permitted to go into the sophomore classes with the exception of anatomy, and thus finds himself at the close of three years having completed the formal curriculum, with one year to devote to extra work on clinical subjects or specialties.

Very truly,

(Signed.)

HENRY B. WARD.

My Dear Doctor:—(1) The entrance examinations held for the university and by the professors in each department are sufficient in my judgment to meet the scholastic requirements of the association, but do not conform strictly with article 3, section 2, of the constitution. The examiners should receive the indorsement of the State Board of Medical Examiners or of the state superintendent of public instruction.

(2) The figures in section 6, article 3, are relative. If you will refer to the standard curriculum adopted you will find no mention made of physics in the first year of a medical course.

(3) I do not see wherein a fee of \$5 for a certificate of credit and honorable dismissal to another school conflicts with section 11 of our by-laws. A student seeking matriculation must present credentials. On receipt of the credentials it is the duty of the college officials to have them verified by correspondence with the college of issue. I presume your college would willingly and without fee verify its own papers. The question of a fee to the student does not enter into intercollegiate communications. If your college refused to recognize a communication of this character it would certainly be censurable.

(4) You are correct as to the matter of the order of assignment of subjects to any one year. For example, subject credit may be given for freshman work and the student assigned to sophomore work, and so on through until the completion of the curriculum. Special subjects may be assigned during the completion of his time service. This is being done in almost every college of the association. The question of subject credit is in the hands of the college faculty and usually referred to the professor of the subject for which credit is asked.

Respectfully submitted.

(Signed.) W. J. MEANS,
Chairman Judicial Council.

Wisconsin College of Physicians and Surgeons.

W. J. Means, M.D., Chairman, Columbus, Ohio.

Dear Doctor:—Two osteopathic graduates are applying for admission to this school. On what terms can they be admitted, they having complied with the entrance requirements? Are they entitled to time credit or scholastic credit, either or both?

Very truly,

(Signed.)

W. H. WASHBURN, Secretary.

Dear Doctor:—Replying to your favor will say that osteopathic students or graduates are not eligible for time credit under any circumstances, nor for scholastic credit, except as they may pass an examination as required by the rules of your college. Respectfully submitted.

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

Woman's Medical College, Baltimore.

Dr. W. J. Means, Chairman Judicial Council, Columbus, Ohio.

Dear Doctor:—Will you please advise me in the following case: I have an application from a young lady in Louisiana who has completed her sophomore course in the medical department of the University of Fort Worth, Tex. Now, I would like to know if we can admit her to our junior course.

Respectfully,

(Signed.)

S. GRIFFITH DAVIS, M.D., Dean.

Dear Doctor:—The fact alone that the young lady to whom you refer has completed her sophomore course in the medical department of the University of Fort Worth does not necessarily give her junior standing in a college of the association.

(1) It is necessary that her liberal education is up to the standard. (2) That she has pursued the study of medicine two years, as prescribed in the constitution and by-laws. (3) It is your duty to examine her credentials, and if they meet with the above condition you can admit her to junior standing. Respectfully submitted.

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

University of Southern California.

Dr. W. J. Means, Chairman of Judicial Council, Columbus, Ohio.

My Dear Doctor:—We have an application for admittance to our senior class from a graduate of Tokio Medical College, who afterward spent one year in the Imperial University of Tokio. I write to ask you whether the requirements of these colleges are such as would justify us in admitting him to the College of Medicine of the University of Southern California.

Very truly,

(Signed.) WALTER LINDLEY, Dean.

Dear Doctor:—I have no data at hand from which to estimate the requirements of the Tokio Medical College. If the applicant's credentials show an equivalent in entrance requirements, time spent in study and subjects completed in the first, second and third years of a medical course to those required in this country, he will probably be eligible to senior standing.

Respectfully submitted.

(Signed.) W. J. MEANS, Chairman Judicial Council.

Denver and Gross Medical College.

Dr. W. J. Means, Columbus, Ohio.

My Dear Doctor:—As chairman of the Judicial Council of the college association I should like to ask your judgment with regard to the following:

(1) According to the requirements for admission for the session of 1904-05, may a student be admitted on presenting a teacher's certificate?

(2) A student enters Jan. 2, 1905, a medical college whose session began December 1 and continues seven months. He continues in faithful attendance during said session, receiving more than 80 per cent. of attendance, which entitles him to credit for that year's work. Now, he desires to enter a medical college whose session begins September 15 and continues for eight months. May he be permitted to do so? According to section 5, article 3, of the constitution of the association it appears that ten months shall intervene between the beginning of any course and the beginning of the preceding course. The course of the school to which the student desires admission begins September 15. The beginning of the preceding course is December 1. The student, however, did not enter until January 1, but received credit for the course which began December 1.

(3) A student applies for admission to the second year class of a medical college, member of this association, presenting official certificate stating that he has complied with the entrance requirements and completed all the work of the first year in another medical college, member of this association, whose catalogue states that its requirements for admission are those adopted by the Association of American Medical Colleges. May the college to which the student applies for admission to his second year accept him on such certificate from the previous college, or is it incumbent on the second college to investigate as to whether said previous college enforces its advertised requirements?

Very sincerely,

(Signed.)

ROBERT LEVY, Secretary.

Dear Doctor:—(1) A teacher's certificate has not been recognized by the association as a preliminary requisite for admission since 1900. The constitution of 1901, article 3, section 2, states that "in place of this examination, or any part of it, colleges members of the association are at liberty to recognize the official certificate of reputable literary and scientific colleges, academies, high schools and normal schools, and also the medical student's certificate issued by any state examining board covering the work of the foregoing entrance examination."

(2) According to article 3, section 5, of the constitution of the association he could not be given sophomore standing.

(3) This is rather a delicate question and one that requires careful consideration. As a general proposition I do not think it is incumbent on the second college to investigate the credentials of another college, a member of the association, further than to establish the genuineness thereof.

Section 4, article 3, reads as follows: "Colleges in membership in this association may honor the official credentials presented by students from other colleges having the standard requirements maintained by members of this association, excepting for the fourth year of their course, but no member of this association shall admit a student to advanced standing without first communicating with the college from which such student desires to withdraw and receiving from the dean of such college a direct written communication certifying to the

applicant's professional and moral qualifications and to the exact work he has done in said college."

Respectfully submitted.

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

University College of Medicine.

Dr. W. J. Means, Chairman Judicial Council, Association of American Medical Colleges, Columbus, Ohio.

Dear Doctor:—Will you kindly inform us whether, under section 6, article 3, of the constitution, a college is authorized to give credit for a single branch, such as physics or chemistry, to a student who has had the requisite number of hours provided by this section at an approved college or university, having successfully completed the work that is required on such branch toward the bachelor's degree, but not having taken all the other branches necessary for the bestowment of the degree. In other words, must he have the bachelor's degree or simply have fulfilled the requirements for the bachelor's degree on the subjects for which he seeks credit.

(Signed.)

WILLIAM R. MILLER, Proctor,
The University College of Medicine.

My Dear Sir:—Under section 6, article 3, of the constitution, a college may give a student credit for any subject of the curriculum, providing the professor of the said subject is satisfied with the proficiency of the student. This rule obtains not only in the freshman year, but sophomore and junior years. A student entering on a high school certificate who can show proficiency in any given branch can be given credit and allowed to take up elective work.

Respectfully submitted,

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

Dr. W. J. Means Chairman Judicial Council, Association of American Medical Colleges, Columbus, Ohio.

Dear Doctor:—We will thank you very much to give us an answer to the following questions or advice on the same: We have in our institution departments of medicine and dentistry. The students in these two departments are taught in the same classes during their first year and have the same course of study, with the exception that the dental students devote some time to manual technic, which the medical students do not. If we should allow a student who has registered in our dental department for his first year (taking the same course as the medical students in that year) to register as a medical student at the beginning of his second year and continue his course in the department of medicine through the second, third and fourth years and come up for graduation at the end of the fourth year, what would be the effect of such a proceeding on the standing of this college in view of the regulations of the Association of American Medical Colleges? We have frequent applications for the privilege of changing courses at the beginning of the second year and we have not granted them, although it seems hard on the student to be denied when he has had exactly the same course of study that we require of medical students, and yet we would not like to

prejudice the standing of any of our other students by allowing this if it were construed to be in violation of any of the regulations of the association forbidding the granting of advanced standing to students of dentistry.

Very truly,
(Signed.) WILLIAM R. MILLER, Proctor,
University College of Medicine.

My Dear Sir:—According to the rules of the association a student can not change from dentistry at the end of his freshman year and take sophomore standing in a medical course, even though he has taken the freshman medical studies. I grant this is a technical ruling, but if it were otherwise, advantage would be taken in some universities where the dental course is much shorter in anatomy, physiology and other studies that belong to the freshman year of the medical course. We have found that, as a rule, dental students do not take to the freshman medical studies as well as the regular medical students. There are several reasons for this: (1) Their preliminary education is not, as a rule, up to the standard of medical students. (2) The required dental course is not as long as the medical. (3) They do not appreciate the necessity of laying a foundation in anatomy, physiology and histology as do the medical students. (4) According to many of our state medical boards, a graduate in medicine who has switched from the dental course to the medical course and received credit, will meet with trouble. As a rule, he will have to certify under oath that he has met these requirements and taken four years in a medical course. If he had spent one year in a dental course, even though the curriculum was equal to the medical requirements, he could not truthfully certify that he had spent four years in a medical course. This fact would shut him out from examination and make your school disreputable.

(Signed.)

Respectfully submitted,

W. J. MEANS,
Chairman Judicial Council.

College of Physicians and Surgeons, Baltimore.

Dr. W. J. Means, Chairman Judicial Council, Columbus, Ohio.

Dear Doctor:—A question has just arisen about which there is marked difference of opinion in our own faculty, and we have decided to leave the matter to you in your official capacity. The question is the granting of an honorary degree of M.D. to one who is thoroughly qualified and who is engaged in working as a teacher of bacteriology. He desires the degree merely as a pedagogical asset. What do you think of the propriety of granting it? Very truly,

(Signed.)

CHARLES F. BEVAN, M.D., Dean.

My Dear Doctor:—The degree of M.D. could not be conferred except for work accomplished in a regular medical course. According to the rules of the association an honorary degree of M.D. can not be granted.

(Signed.)

Respectfully submitted,

W. J. MEANS,
Chairman Judicial Council.

Baltimore Medical College.

W. J. Means, M.D., Chairman of Judicial Council of A. A. M. C., Columbus, Ohio.

Dear Doctor:—Enclosed herewith please find statement of one of our pupils, Mr. C. E. Beach, of California.

Mr. Beach has pursued his studies in this college two years. On entering two years ago we told him he would be required to enter the freshman class, but that he could do in advance some of the work of the sophomore class. On entering the second year, he had already, as a first-year student, done in advance, some of the work of the second year. In the same way, during his second year, he pursued in advance, third-year work, with the understanding that when he came to his senior year he would be required to devote two years in the senior class, prior to graduation.

You will then, I trust, understand that the status of Mr. Beach is that of a student who has completed, technically, his freshman and sophomore work, but that he has also really completed in advance the work of the third year.

Pursuant to agreement at the time of entrance, he has received from us credentials for two years' work only. Mr. Beach now comes to us in good faith, asking that in view of the large amount of work done at the Stanford University before entering this college, we permit him to enter our senior class the ensuing session, and apply for his degree in the spring at the end of the course. In other words, he wishes advanced standing for the work done at Stanford University, before entering this college. His statement, herewith enclosed, is correct and you will observe that he has already done a great deal of work. I have told him that if you, as chairman of the Judicial Council, should decide that his work entitles him to advanced standing, we will be pleased to so accord it and place him in the senior class, with the right to apply for his degree in the spring.

I regret to trouble you with this matter. The young man is, in all respects, honorable and worthy, and I have felt that perhaps my decision in his case was harsh and unjust, and that, at least, he is entitled to a review of credentials and your decision, which will, of course, be final. Mr. Beach is well advanced in all of his work, and has completed without difficulty the work of all three years, but has, for reasons stated, credit for two years only. Very truly,

(Signed.)

DAVID STREETT, M.D., Dean.

Dear Doctor:—The question of time credit has been gone over repeatedly and thoroughly in years gone by with various colleges of the association. It has been repeatedly decided that time credit could only be given in lieu of certain degrees, viz., baccalaureate, pharmaceutical and dental. The association has adhered strictly to this ruling, and many of the State Boards of Examination and Registration have adopted such a standard. Therefore, it is my opinion that Mr. Beach can only be given junior standing.

Respectfully submitted,

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

W. J. Means, M.D. Chairman Judicial Council, A. A. M. C., Columbus, Ohio.

Dear Doctor Means:—Mr. V. J. Funderburk of Monroe, La., has applied for admission to our fourth year or senior class with the following credentials:

He entered the Memphis Hospital Medical College in the fall of 1903 and was given advanced standing for three years of college work, one year of which was spent in North Texas State College and two years in the Louisiana State College. In entering the North Texas State College he was given advanced standing of one year for work done during his high school course which he had completed. The Memphis Hospital Medical College credited him for time but not for work, examining him on all first-year subjects and placing him in the sophomore class. His junior year was completed at the Medical Department of the University of Nashville, Tenn. He now applies for admission to our fourth year or senior class, and the question arises whether we shall recognize the advanced standing given him on entering the Memphis Hospital Medical College.

From inquiry I find the course he pursued in the North Texas State College and the Louisiana State College was a regular four-year college course which he completed in three years, and that during the course he did the following work in the medical studies: Chemistry, 770 hours; physiology, 770 hours; physics, 400 hours; osteology, 120 hours; comparative anatomy, 310 hours; histology and embryology, 200 hours; total, 2,570 hours.

My reason for this communication is that Mr. Funderburk did not receive the bachelor's degree, but was awarded a diploma at the end of his college course. It seems that the State College of Louisiana awards diplomas to graduates, but not degrees.

You will then observe that Mr. Funderburk has received no degree apparently because no degrees are conferred at that institution, but he has done a large amount of premedical work, more than is required by the association. If the work done at that college entitled him to a degree, but owing to the rules of the institution no degree was conferred with his diploma, it would seem a hardship to allow this technical matter to prevent him from receiving advanced standing on entering the Memphis Hospital Medical College. The matter, however, by reason of its technical condition, it would seem, is liable to question, and for this reason I have submitted it to you for decision.

Kindly advise me of your decision in the matter at as early date as convenient.

Very truly,

(Signed.)

DAVID STREETT, M.D., Dean.

My Dear Doctor:—Under the rules of the association Mr. Funderburk was not entitled to time credit in the beginning of his course. His credits from the Memphis Hospital Medical College would not receive much consideration. His course in the University of Nashville, Tenn., could be accepted without question. The rules of the association predicate time credit on a baccalaureate degree with a fixed valuation of studies that correspond to those of the first year in a medical course. From the statements made in his letter it would seem

that he has met all the requirements except that of a bachelor's degree. Under the circumstances I will have to rule that he is not entitled to senior standing in a college of the association. Your statement that the State College of Louisiana awards a diploma to graduates, but not degrees, does not change the conditions. Respectfully submitted,

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

California Board of Medical Examiners.

William J. Means, M.D., Chairman Judicial Council, A. A. M. C., Columbus, Ohio.

Dear Doctor:—It affords me great pleasure to inform you that the policy of this board in attempting to enforce the legal standard of the Association of American Medical Colleges was endorsed by the State Medical Society at its recent meeting.

I have been asked whether it was proper, under the constitution of the association in force Jan. 1, 1899, for a medical school to accept the certificate of a private quiz master as evidence of the preliminary education of a matriculant. Are not the faculty of the medical school supposed to conduct the examination themselves? Can the faculty delegate such duty to a person outside of the institution? An answer to the above query will be greatly appreciated by the committee on credentials, as well as by the board itself.

Respectfully,

(Signed.)

WILLIAM C. TAIT,
Attorney for the Board.

Mr. William C. Tait, Board of Medical Examiners, San Francisco, Cal.

My Dear Sir:—In reply to your inquiries seriatim I submit the following:

(1) Was it proper under the constitution of the association in force Jan. 1, 1899, for a medical school to accept the certificate of a private quiz master as evidence of a preliminary education of a matriculant? It certainly was not.

(2) Are not the faculty of a medical school supposed to conduct the examination themselves? Not necessarily.

(3) Can the faculty delegate such duties to a person outside of the institution? Yes.

I might suggest in explanation that the association does not permit members of the faculty to conduct examinations for preliminary qualifications at the present time. The examination must be made by an authorized board of examination and registration, or by the state superintendent of public instruction.

In 1899 members of the faculty could conduct these examinations, but could delegate work to members of the faculty of literary colleges or some public instructor. The certificate of a private quiz master was never accepted as sufficient evidence of preliminary qualifications.

Section I, article 3, of the constitution in force in 1899 reads as follows: "Each college holding membership in this association shall require of each student, before admission to its course of study, an examination, the minimum of which shall be as follows:"

Section II, article 3, of the constitution reads as follows: "In place of this examination, or any part of it, colleges, members of this association, are at liberty to recognize the official certificate of reputable literary and scientific colleges, academies, high schools and normal schools, and also the medical student's certificate issued by any state examining board covering the work of the foregoing entrance examination."

In section II you will note there is no mention of a private quiz master.

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

William J. Means, M.D., Chairman Judicial Council, A. A. M. C., Columbus, Ohio.

Dear Doctor:—Our board of medical examiners has been mandamus'd by an applicant for a license who was rejected for failure to meet the requirements of the Association of American Medical Colleges. The contention is that section 6 of the constitution of the association, in force after Jan. 1, 1899, permits colleges, members of the association, to give to students having the A.B., B.S., or equivalent degree from reputable literary colleges, one year of time, and on any one of the four years. Our board ruled that the credit could only be given on the freshman year. The board would like very much to have from your hand as chairman, and also as university professor, an opinion as to the proper interpretation of the rule, and how it is usually applied by the colleges members of the association. The case comes up in our Supreme Court about the middle of October. I would, therefore, be greatly obliged to you if you would favor the board with the above opinion.

(Signed.)

Very respectfully,

WILLIAM C. TAIT,
Attorney for Board.

My Dear Sir:—The primary object in granting time credit for work done in a literary college is to encourage young men to make better preparation for their professional study and work, by taking literary and scientific training in a medical college preliminary to entering a professional school. The universities in almost every state, recognizing this object, make it possible for students to take a bachelor's degree and a medical degree in seven years. The length of the medical course is regulated by statutory provisions, in most states, requiring four years. Such statutory regulation does not obtain in literary colleges. Therefore, the time engaged in literary work is sacrificed in favor of the four years' medical course. There is no reputable college in the country that would consider giving time credit for a bachelor's degree for other than the freshman year, and then only when the degree represents the equivalent of the first year's work in a medical course. Time credit for the first year alone is the only one contemplated in the constitution of the association, and it should not be questioned. The contention that time credit can be given in any year of the four of a medical course, at the election of the holder of the degree, is positively absurd.

Respectfully submitted,

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

University of Maryland.

R. Dorsey Coale, Dean, University of Maryland, Baltimore, Md.

My Dear Doctor:—(1) Can a student who has attended a course beginning Jan. 1, 1905, and terminating in July, 1905, enter at the present date a course which began on Oct. 1, 1905, and will terminate June 1, 1906? No. The decisions of the council, and sustained by the association, have been invariably against allowance of time in such cases. In the past students sought to save three or four months' time by taking their freshman year in a spring school. The custom became so flagrant that further recognition was positively denied.

(2) Should the above be considered inadmissible under the rules of the association, could such student, by delaying his matriculation until November 1, then enter the course mentioned above? No. This would only be taking advantage of a technical construction of the wording of the constitution. You certainly have a misconception of the 80 per cent. requirement. It has nothing whatever to do with gaining credit for any other than the one to which it is applied.

I am sorry to rule against a meritorious student, but in construing the law we have no discretion and must make it apply to the just and unjust alike.

Respectfully submitted,

(Signed.)

W. J. MEANS,
Chairman Judicial Council.

California Board of Medical Examiners.

William J. Means, M.D., Chairman Judicial Council, A. A. M. C., Columbus, Ohio.

My Distinguished Confrère:—During the past two years, at my request, our attorney, Mr. William C. Tait, has frequently consulted you in relation to the interpretation of the constitution of the Association of American Medical Colleges, and it gives me pleasure to inform you that on every such occasion our adoption of the course suggested by you was sustained in the Superior Court in this city.

The legislature having made the association standard the only legal standard in this state, and the board having decided to enforce both the spirit and the letter of the law, we are greatly interested in the slightest change suggested or made in the requirements of said association. Prior to 1906 our work had undoubtedly rejuvenated and elevated to an exceptional high degree of proficiency medical education on this coast; but, owing to what I consider an oversight on the part of the association, we are now retrograding. Several almost defunct medical institutions, owned and controlled by predatory trustees, are again competing successfully with—even surpassing our foremost universities and private medical schools. I refer to sec. 2, article III, of the constitution, by which entrance examinations may be conducted by deputy state superintendents of public instruction. Permit me to recall briefly how, owing to the unfortunate retention of said section, some local schools have outrageously lowered the preliminary educational requirements. Early in the summer of 1905, when our best schools exacted of all matriculates either a college degree or a high-school diploma, three colleges suc-

ceeded in securing the appointment of as many quiz masters as deputy superintendents of public instruction, and forthwith advertised said fact to the public, laying great stress on the numerous advantages to be secured thereby. Knowing that the certificates of said quiz masters are not recognized by any academic or scientific school in this state, members of this board soon demonstrated and reported to the board the following absolute fact: A certificate equivalent to one year in the grammar school and two years in the high school (three years in all) can be obtained after a course averaging five weeks for a sum averaging \$20.

The results of the above scheme were seen in the exceedingly large classes of freshmen in the colleges alluded to. The board is powerless to stop this nefarious work, and besides the growing discontent resulting therefrom among the reputable element of the profession, many of my colleagues on the board are losing faith in what we had always considered the strongest point in our state law and the only logical solution to the problem of interstate reciprocity, i. e., the association's standard.

We appeal to you and trust that at the Pittsburg meeting the association may consider the propriety of modifying paragraph d of section 1, article III, so as to read as follows: "Certificate of reputable instructors recognized by any state boards of medical examiners duly authorized by law, may be accepted in lieu of any part of this examination."

It will also be necessary to eliminate from section 2 all reference to examinations by or under the authority of the superintendent of public instruction of the city or state.

Thanking you most sincerely for your numerous communications, and hoping that we may continue to co-operate in matters pertaining to medical legislation, I am,

Gratefully yours,

(Signed.)

DUDLEY TAIT.

Wm. J. Means, M.D., Chairman Judicial Council, A. A. M. C., Columbus, Ohio.

My Distinguished Confrère:—Your prompt message has brought joy to the friends of medical education on this coast. Permit me, in the name of my colleagues, to congratulate you on your brilliant success, and to thank you most warmly for the invaluable aid thereby extended us. Henceforth our rally cry shall be: "Long live the Association of American Medical Colleges!"

Gratefully yours,

(Signed.)

DUDLEY TAIT.

Respectfully submitted,

(Signed.)

WM. J. MEANS,
R. WINSLOW,
H. B. WARD,
GEO. M. KOBER,
T. H. HAWKINS.

Report of Committee on Evaluation of College Work.

One year ago this association chose a committee on the evaluation of college work and laid on it the following specific duties: To ascertain the character of work done by literary colleges in branches taught in medical colleges, and to determine the credit merited by each institution, to the end that this association may then make public announcement of the fact. That the work thus laid out could be considered within the short space of a year, only in its general outline, will appear to all self evident.

Your committee on the evaluation of college work has held four meetings this year, has conducted extensive correspondence with medical men, college teachers, members of state medical boards, and others in the effort to gather the most varied opinions. It has investigated so far as possible the questions of fact involved in the evident differences of opinion on this matter, and feels that to some considerable extent these differences are only the expression of incorrect or inadequate information regarding the proposed plan. Accordingly your committee published in the first number of the *BULLETIN* of the association a preliminary report setting forth precisely the meaning of time credit and subject credit, and the conditions under which, in our opinion, the credit, with which alone we are now concerned, might be granted to the student.

The committee finds nearly universal agreement in public or private expression with the view expressed by a past president of this association: "Students with degrees from the biological courses in most of our eastern colleges easily take their places in the sophomore class and acquit themselves creditably. I have never known one to fail in the final examination before his faculty or the state board." The view thus expressed is also accepted by the Medical Council of Great Britain, since their regulations provide that the first year of medical study may be passed at a university or teaching institution recognized by a licensing body and approved by the council, where the subjects of physics, chemistry and biology are taught.

It seems clear from the data at hand that many colleges are confining their work more or less closely to the standard classical curriculum, which was universal half a century back, and in all colleges some students follow this course. Such work has demonstrated its value in the development of liberal culture, but it does not appear to give its possessor any distinct advantage over the mere high school graduate in respect to the time necessary to complete the medical course. Consequently graduates of such institutions can not hope to secure a medical degree in less than the normal time of four years.

On the other hand, there are many colleges that have been able to expand their facilities by adding work along scientific lines, which distinctly aids the student in completing his med-

ical course in less than the normal time. Perhaps no two colleges have precisely the same advantages within this general field. The paper already read before this association by Dr. F. C. Waite indicates the lines in which colleges may do and are doing the foundation work of the medical course. It is probably rarely that any literary college can complete any subject in the medical curriculum; but Dr. Waite has shown that literary colleges can teach and are teaching much of the foundation work better than the same branches are taught in the average medical school.

So long as the standard of minimum entrance requirements in this association remains at the level of a four-year high school course, it is only simple justice to grant the graduate of such a course in a high grade college the advantage which he has fairly won, and to permit him to enter the sophomore year of the medical course. He will still be required to complete all of the standard curriculum before receiving the medical degree. To maintain, however, that for the purposes of medical study the graduate of Wisconsin, Amherst or Johns Hopkins is not superior to the mere high school graduate, even in respect to the time necessary to complete the medical curriculum, is certainly to discourage those men looking forward to medicine from securing better training. In the opinion of your committee such a position will not conduce to the elevation of standards in medical education and will tend clearly to reduce the influence of the independent college and of the separate medical school. Both of these have been and are too important factors in the American educational system to be degraded without serious cause. It is, however, just as illogical to class all private colleges as of equal value as it would be to assign equal rank to all institutions denominated medical colleges. Consequently, your committee feels that for the satisfactory solution of this question it is necessary to group literary colleges into classes just as is done in Great Britain, as noted above, and just as this association to-day is differentiating medical schools by its published requirements for such as do work worthy of acceptance.

The committee would recommend that wherever state licensing boards possess and will exercise statutory powers to pass upon the work of literary colleges in their own state, this association accept for all its colleges such rulings without revision. In case members of this association are called upon to decide on the rights of students holding degrees from colleges in states where the official licensing board has not received or exercised the power of passing upon the work of literary colleges, then a decision shall be made upon the basis of the following general principles, subject in each case to reference for opinion to the chairman of the judicial council of this association. Before the question of credit for work done in colleges of arts is considered, the college applying for credit must show:

1. That it is in good standing, and is so accredited, by membership in its state or sectional association, provided such association exists.

2. That it requires for admission to its freshman class not less than three full years of high school work above the common school course.

3. That it has laboratory courses and equipment adequate to meet the requirements outlined in the preliminary report of the committee on the evaluation of college work, as published in No. 1 of the BULLETIN of this association.

4. That it gives not less than one-third of the total amount of work required in the freshman and sophomore years of the standard medical course as adopted by this association.

Your committee appreciates the hardship entailed upon private colleges, which are compelled to maintain expensive plants for the instruction in laboratory branches, but which through this action are deprived of the normal revenue of such work. The committee also understands the extra labor involved in ascertaining the facts in any individual case and deems it just that some provision be made to meet these conditions. It accordingly recommends that a uniform fee of \$20 be collected from each student granted advanced standing on the basis of work done in a literary college.

CONCLUSIONS.

1. The granting of time credit to any and every student possessing the bachelor's degree is entirely wrong.

2. Only college graduates in the chemical-biological course who have anticipated one-third of the combined freshman-sophomore course of the standard medical curriculum should have the opportunity to secure time credit.

3. Detailed information should be furnished that the college is capable of teaching this work adequately.

4. To rank the college graduate on no higher plane than the high school graduate is not in furtherance of higher standards in medical training.

J. H. T. MAIN,
H. B. WARD,
FRED. C. ZAPFFE.

Report of Committee Appointed to Attend the Meeting of the A. C. of R. M. E. and L. Boards.

Your committee attended the meeting of the confederation held in Indianapolis, April 27, 1905, at which some fourteen states were represented. At that meeting the confederation adopted the uniform curriculum adopted by this association at its last meeting, and passed a resolution that was in line with the suggestions made by Professor Wheelock, that there should be a reciprocal relation or understanding between this association and the examining and licensing boards represented

in the confederation concerning the standing of colleges, requirements, etc.

Secretary Zapffe gave a detailed account of the information he has been collecting from the various colleges inspected, and the members present were so much interested that a resolution was passed requesting this association to furnish the confederation with copies of its inspection reports.

WM. J. MEANS,
FRED C. ZAPFFE.

REPORT OF THE SECRETARY-TREASURER.

The influence of the association has made itself felt more than ever before in shaping the trend of medical education during the past twelve months. Not alone medical colleges, but literary colleges, universities and state registration and examining boards have looked to us for the solution of the problems that we are all engaged in solving. Inasmuch as some of these have been touched on in the discussion this morning, it is unnecessary to refer to them at this time. The curriculum which was adopted by this association last year has also been accepted as the standard by the members of the American Confederation of Reciprocating Medical Licensing and Examining Boards, by boards not holding membership in that association, and by medical colleges in general.

Medical Examining and Registration Boards.

Your secretary has had a large correspondence with the executive officers of many examining boards in relation to the requirements for entrance adopted last year. Needless to say, all the boards were very much gratified with the step taken at that time, and particularly with the effort that was made to provide a definite basis on which the recognition of a high school diploma shall depend. It is to be regretted, perhaps, that in place of adopting the point system, the association did not adopt a more widely known method of accrediting, such as the unit or the count, preferably the latter, because it represents the smallest unit of work, one hour a week for one year. Nevertheless, the point system has its advantages and it is possible that in the near future all systems of accrediting will be the same. The present standard is on trial.

Matriculation Record Blank.

In accordance with the requirements of the constitution, a matriculation record blank was forwarded to every college, and it is apparent, even at this early date, that these blanks will be of great service if they can be made available to examining boards. The record of every student will be on file in the office of this association, and will be useful to the colleges in regulating the transfer of students. It was our aim to have

this blank as complete as possible, and while at first glance it may appear somewhat involved, yet a closer examination will show the contrary to be true. It is not difficult to fill out these blanks if the records have been kept as they should be kept.

The Bulletin.

THE BULLETIN of the association has been issued twice, and your secretary was pleased to learn that the colleges have appreciated the possibility of being in closer touch with the work than would have been possible without THE BULLETIN. It serves as a ready means of communication and without doubt its value will increase from year to year. It is desirable, however, that the colleges themselves contribute to the pages of THE BULLETIN from time to time such matter as is of interest to the members, as well as to others. Inquiries can be answered by this means, and it is the intention to publish hereafter important decisions of the Judicial Council, particularly those made at the request of examining boards. During the year the council has been called on to make decisions which have served as a basis of adjudication in the courts at law. State boards have appreciated this work very much, and it has served to bring these boards in closer touch with this association. After all, one of our objects should be to do that which these boards have not the means of doing.

These bulletins, as well as the reprints of the transactions, were mailed to all the medical colleges, state boards and libraries, and many other interested parties who have asked to be placed on the mailing list. The demand for our publications was so great that the supply was exhausted many months ago. This is significant.

Results of Inspection.

Personal investigation has convinced your secretary that the colleges of this association are doing all in their power to conform to this curriculum, although, as might be expected, it has not been possible for some colleges to carry out, in detail, all its requirements. However, it is a question of only a short time before the work has been adapted to the curriculum, when it will be found that it is not only feasible, but an exact basis on which any kind of a curriculum may be built, according to the views of the individual college.

Since the last meeting your inspection committee has visited colleges in Indianapolis, Columbia, Mo., Baltimore, Washington, Omaha, Lincoln, Buffalo, Cincinnati, and Nashville, Tenn. The results of these visits were extremely gratifying. The colleges visited were found to be well-equipped and prepared to teach medicine in all its departments. There is much to be learned from these visits. In the first place many medical schools are doing far better work than is believed, generally. They are all complying with the requirements of the association, and the facilities of many of them are astonishing. For

some years the cry has been that medical schools should have a hospital connection, and your committee found that not only is this true, but a large number of colleges either possess a hospital or have full control of one.

It would be eminently desirable, if it were possible, and it can be made so, to furnish the results of these visitations to state examining boards. Your secretary has had a number of inquiries from state boards as to the standing and equipment of some colleges, and if he had had the authority to furnish an inspection report there is no doubt but that it would have been of service to the college concerned. This is a matter that ought to be discussed at this time. The committee wishes to thank the officials of the colleges visited for their uniform courtesy and for the willingness displayed to further this work.

The following colleges have withdrawn from membership in the association: Rush Medical College, Medico-Chirurgical College of Philadelphia, Northwestern University Medical School, Medical Department of the University of Minnesota, Syracuse University Department of Medicine, and the Woman's Medical College of Philadelphia. The Fort Wayne College of Medicine and the Central College of Physicians and Surgeons have merged with the Medical College of Indiana, and are known now as the Indiana Medical School, Medical Department of Purdue University. Applications for membership were made by the Louisville Medical College, the School of Medicine of the University of Oklahoma, the Medical Department of the University of North Dakota, the American College of Medicine and Surgery (Chicago), and the College of Physicians and Surgeons of Los Angeles, Cal. Application blanks have been asked for by the Ensworth-Central Medical College and the School of Medicine of the University of Utah. The present membership of the association is fifty-nine.

Although your secretary has no complaint to make about not having had enough work to do, yet it seems to him that not enough use is made by the members of the association of the information that is being collected in this office. Many questions arise which can be answered easily by the secretary, as he has had occasion to learn on his inspection trips. The colleges should be in closer touch with each other. That is only possible by making this office the information bureau of the association.

(The treasurer's report showed a balance on hand of \$1,157.58.)

Respectfully submitted,

FRED. C. ZAPFFE.

ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

Minutes of the Sixteenth Annual Meeting, held at Pittsburg, Pa., March 19, 1906:

MORNING SESSION.

Pursuant to call, the association convened in the Fort Pitt Hotel, and was called to order at 9:30 a. m., by the president, Dr. Samuel C. James.

President's Address.

The president welcomed the delegates in a few well chosen words, and the second vice-president, Dr. Eli H. Long, then took the chair, while the president delivered his annual address. (See page 5.)

On motion of Dr. Wm. H. Wathen, the address was referred to a committee of three. The chair appointed on this committee Drs. J. R. Guthrie, Thos. C. Evans and David Streett.

Reading of Papers.

Dr. Charles McIntire, secretary of the American Academy of Medicine, followed with a paper entitled "Should Credit Be Given in the Medical Courses for Preliminary Studies Beyond the Entrance Requirements?" (See page 10.)

On motion the discussion of this paper was deferred until after the reading of the next three papers.

Dr. Frederic S. Lee, Columbia University, read the first paper of the symposium on "What Medical Subjects Can Be Taught Efficiently in the Literary School." He was followed by Prof. F. C. Waite, Western Reserve University, and Prof. C. Judson Herrick, Denison College.

The discussion on these papers was opened by Dr. Wm. H. Wathen, who was followed by Dr. P. Richard Taylor, Dr. J. R. Guthrie, Dr. H. W. Loeb, Dr. Robt. Luedeking, Prof. Chas. F. Wheelock, Dr. Wm. J. Means, Dr. Geo. R. Jenkins, Dr. Fred. C. Zapffe, Dr. Robt. Reyburn, Dr. Park L. Myers, Dr. B. D. Harison, Dr. David Streett, and, in closing, by the essayists. (For discussion see page 38.)

The question, "How Can the Association of American Medical Colleges Be of Greatest Service to State Registration and Examining Boards," was discussed by Dr. B. D. Harison, secretary of the Michigan State Board of Registration in Medicine, Dr. Benj. F. Bailey, president of the Nebraska State Board, and Prof. Chas. F. Wheelock of the Education Department of the State of New York. (See page 48.)

Dr. M. M. Hamlin of the Missouri State Board read a paper on "Interstate Reciprocity and Medical Colleges." (See page 60.)

The association then adjourned until 2 p. m.

AFTERNOON SESSION.

The association reassembled at 2 p. m., and was called to order by the president.

Delegates Present.

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The roll-call was taken, and the following colleges were represented by delegates:

Geo. Washington University, Department of Medicine—W. F. Phillips.

*Georgetown University School of Medicine—Geo. M. Kober.

Howard University Medical Department—Robt. Reyburn.

American Medical Missionary College—E. L. Eggleston.

University of Illinois College of Medicine—F. B. Earle.

Illinois Medical College—(Proxy).

University of Indiana School of Medicine—B. D. Myers.

University of Iowa College of Medicine—J. R. Guthrie.

Keokuk Medical College, College of Physicians and Surgeons—Geo. R. Jenkins.

Kansas Medical College—W. S. Lindsay.

University of Kansas Medical Department—Geo. Hoxie.

Hospital College of Medicine—P. Richard Taylor.

Kentucky School of Medicine—Wm. H. Wathen.

Kentucky University Medical Department—Thos. C. Evans.

Louisville Medical College—C. W. Kelly.

Baltimore Medical College—David Streett.

College of Physicians and Surgeons, Baltimore—Chas. F. Bevan.

University of Maryland School of Medicine—R. D. Coale.

University of Missouri Department of Medicine—A. W. McAlester.

University Medical College—S. C. James.

St. Louis University Medical Department—H. W. Loeb.

Washington University Medical Department—Robt. Luedeking.

John A. Creighton Medical College—D. C. Bryant.

University of Nebraska College of Medicine—H. B. Ward.

University of Buffalo Medical Department—E. H. Long.

Western Reserve University Medical College—F. C. Waite.

Ohio Medical University—W. J. Means.

Toledo Medical College—P. L. Myers.

Western Pennsylvania Medical College—J. C. Lange.

Meharry Medical College—G. W. Hubbard.

University College of Medicine—Wm. R. Miller.

University of West Virginia Medical Department—J. N. Simpson.

There were also present: Dr. B. D. Harison, secretary Michigan State Board of Registration in Medicine; Dr. Benj. F. Bailey, president Nebraska State Board; Hon. Howard J. Rogers, first assistant commissioner and Prof. Chas. F. Wheelock, chief examiner Department of Education State of New York; Dr. M. M. Hamlin, Missouri State Board; Dr. Charles McIntire, secretary American Academy of Medicine; Dr. Frederic S. Lee, Columbia University; Prof. J. H. T. Main, presi-

dent Grinnell College; Prof. C. Judson Herrick, Denison College; Dr. W. H. Ingram, Pittsburg; Dr. Randolph Winslow, Baltimore; Dr. Fred C. Zapffe, Chicago.

On motion, the minutes of the 1905 meeting, held at Chicago, were accepted, as printed.

The chair, at this juncture, appointed the following nominating committee: Drs. R. Winslow, B. D. Myers and J. N. Simpson.

Conference Committee.

Dr. Geo. M. Kober moved the appointment of a committee for the purpose of conferring with Drs. Harison, Bailey and Prof. Wheelock with reference to the suggestions contained in their papers, the committee to report fully at the next meeting.

Dr. H. W. Loeb amended this motion to the effect that the secretary constitute this committee and that he communicate with the gentlemen named by Dr. Kober. Dr. Kober accepted the amendment and it was carried.

Report of Committee to A. C. R. M. E. and L. Boards.

The committee (Means and Zapffe) appointed to attend the meeting of the American Confederation of Reciprocating Medical Examining and Licensing Boards, held April 27, 1905, at Indianapolis, presented its report. (See page 83.) The report was accepted, and, on motion, the committee was continued.

Report of Committee on Evaluation of College Work.

The report of the committee on evaluation of college work (Main, Ward and Zapffe) was then read. (See page 81.)

Dr. Ward moved the adoption of the report; seconded by Dr. Long.

Dr. W. F. S. Phillips moved as a substitute the reception of the report and that it be spread on the minutes.

Carried.

Report of Committee on President's Address.

The committee on president's address reported as follows: Recognizing the many valuable suggestions made in the able address of President James, and our inability to properly consider them at this time, we respectfully recommend that the address be printed in full in the official minutes so that every member may read and profit by its wise suggestions.

[Signed]

J. R. GUTHRIE,

T. C. EVANS,

DAVID STREETT.

Dr. Guthrie's Resolution.

Dr. J. R. Guthrie offered the following resolution:

Resolved, That it is the sense of this association that we recommend that in the future no time credit be given for a baccalaureate degree, but that subject credit may be allowed, on satisfactory examination, and that we will continue to require a full four years' residence in medicine for the degree of doctor of medicine.

Dr. Phillips raised the point of order that the resolution was out of order, because it was mandatory and practically an amendment to the constitution, which is not possible.

The chair ruled that the resolution was simply an expression of opinion, and being in the nature of a recommendation, it was in order.

The vote was taken and the resolution was accepted. The secretary was instructed to explain this matter in the next issue of *THE BULLETIN* of the association so that there will not be any misunderstanding.

Report of Secretary-Treasurer.

The report of the secretary-treasurer was called for and the report was submitted. (See page 84.)

Auditing Committee.

The chair appointed the following auditing committee: Dr. Wm. J. Means, J. R. Guthrie and P. Richard Taylor.

On motion of Dr. Ward the auditing committee was authorized to submit its report after adjournment, the report to be printed in the official transactions.

Committee on Medical Education.

The committee (Zapffe) presented its report (See page 63) and, on motion, the report was ordered spread on the minutes and the committee continued.

At this juncture the secretary read the following communication:

The conference of colleges of the interior, including twenty-six of the more prominent colleges of the middle west and the west, at the fourth annual meeting, held at Colorado Springs, Feb. 23, 1906, voted as follows regarding medical work in colleges of arts and correlation with medical schools:

We thoroughly approve of the continued development of college courses in arts by the introduction, as rapidly as conditions justify it, of the pure sciences fundamental to medical training until work enough is offered to satisfy at least one year of the requirement for the degree of doctor of medicine.

Pure sciences of this type, histology, embryology, physiology, osteology, physiological chemistry, toxicology, and some others that may be classed as medical sciences, are college subjects, and as such, colleges are entitled to offer them. If they are given under adequate conditions of instruction and equipment there is no good reason why they should not receive due credit as medical subjects from medical schools. It should be the business of competent medical authorities to determine what are adequate conditions of equipment and instruction.

We disapprove without qualification of the plan whereby incoming seniors in independent colleges of liberal arts may change residence and elect as the work of their senior year, the first year work in colleges of medicine, with the understanding

that they will receive on the satisfactory completion of the work the bachelor's degree from the college of arts. An arrangement of this sort deprives them of the most important year in the college course. Furthermore, it is educationally unwise and unsound because it associates together incoming freshmen in the medical school with incoming seniors from the college of arts.

If colleges feel obliged in certain cases to make arrangements of this sort with medical schools, we urge that those arrangements be with medical colleges requiring bachelor's degree, or at least two years of college preparation, for admission to the medical school.

We recommend that efforts be made to secure a reconsideration of the action of the state boards of medical examiners, requiring all candidates for examination to have four years in a medical college, unless the term medical college is enlarged so as to include courses in colleges of arts equivalent to those offered in medical schools. We also recommend that these requirements as to candidates for examination be tested, if necessary, in the courts.

It is our belief that the college of arts is entitled to the equivalent four years of the time required for securing the bachelor's degree, and that it is for the best interests of university work and professional work that the college be protected in its rights at this point. The university and the medical school may contribute much to such a result by insisting that the college receive the credit to which its work is actually entitled.

Report of Judicial Council.

The report of the judicial council was called for, and Dr. W. J. Means, the chairman, presented the report. (See page 67.)

The report was accepted and ordered spread on the minutes.

Amendment to Constitution.

By unanimous consent Dr. Means was given the privilege to offer the following amendment to the constitution, subsection (d) of section 1, article III, to read as follows:

"Certificates from reputable instructors recognized by the state board of medical examiners duly authorized by law, or by the superintendent of public instruction in states having no examining board, may be accepted in lieu of any part of this examination."

Section 2, article III, was amended to conform with the section so amended by inserting after the words "under the authority of" the following: "the board of examiners or."

The amendments offered by Dr. Means were concurred in and adopted by a unanimous vote.

On motion the proposed amendment to reduce the number of hours devoted to teaching dietetics to twenty and to substi-

tute ten lectures on medical ethics and organization was tabled.

Dr. Streett proposed to change the date of the next meeting to the first Monday in May.

On motion of Dr. Winslow the proposition was laid on the table.

Proposed Amendment.

Dr. J. R. Guthrie gave notice that at the next annual meeting he would propose to amend section 6, article III by striking out everything having reference to the giving of a time credit for a baccalaureate degree.

Dr. R. Winslow moved that the secretary's honorarium be increased to \$1,000. The motion was carried.

Nominating Committee Report.

The nominating committee reported as follows: President, Dr. Geo. M. Kober, Washington, D. C.; vice-presidents, Drs. F. C. Waite, Cleveland and Hanau W. Loeb, St. Louis; secretary-treasurer, Dr. Fred C. Zapffe, 1764 Lexington street, Chicago. Judicial council, Dr. Eli H. Long, Buffalo, N. Y.; Dr. H. B. Ward, Lincoln, Neb.; and Dr. B. D. Myers, Bloomington, Ind., each for three years; Dr. J. M. Flint, San Francisco, Cal., one year.

On motion the report was accepted. (Owing to Dr. Flint's absence from the country for one year, the president later filled the vacancy caused by his absence, appointing Dr. A. A. d'Ancona, San Francisco, Cal., to serve.)

Place of Next Meeting.

On motion it was resolved to hold the next meeting of the association at Richmond, Va., March 18, 1907.

Dr. Loeb moved that a vote of thanks be tendered to the retiring president, Dr. James, to Dr. Means, and to other officers of the association for their untiring efforts in behalf of the association. Carried.

Drs. Ward, Long and Wathen were asked to escort the president-elect, Dr. Kober, to the chair, which was done. Dr. Kober addressed the association briefly.

Dr. Ward moved that a vote of thanks be tendered to Drs. Lange and Ingram, the local committee, and the Union Club for the many courtesies shown the members of the association during their visit in Pittsburg.

On motion a vote of thanks was tendered to Drs. McIntire, Harison, Bailey, Wheelock, Hamlin, Lee and Waite for their participation in the proceedings and for the many valuable suggestions made by them.

The association then adjourned.

SAM'L C. JAMES, *President.*
FRED C. ZAPFFE, *Secretary.*

List of Members.

CALIFORNIA.

College of Medicine University of Southern California, Los Angeles.

University of California Medical Department, San Francisco.

COLORADO.

Colorado School of Medicine University of Colorado, Boulder.
Denver and Gross College of Medicine, Medical Department of the University of Denver, Denver.

CONNECTICUT.

Yale University Department of Medicine (Yale Medical School), New Haven.

DISTRICT OF COLUMBIA.

Columbian University Department of Medicine, Washington.

Georgetown University School of Medicine, Washington.

Howard University Medical Department, Washington.

ILLINOIS.

American Medical Missionary College, Battle Creek, Mich., and Chicago.

College of Physicians and Surgeons, College of Medicine of the University of Illinois, Chicago.

Illinois Medical College, Chicago.

INDIANA.

Indiana Medical College School of Medicine, University of Purdue, Indianapolis.

Indiana University School of Medicine, Bloomington.

IOWA.

Drake University College of Medicine, Des Moines.

College of Medicine University of Iowa, Iowa City.

Keokuk Medical College, College of Physicians and Surgeons, Keokuk.

Sioux City College of Medicine, Sioux City.

KANSAS.

Kansas Medical College, Medical Department of Washburne College, Topeka.

School of Medicine University of Kansas, Lawrence.

KENTUCKY.

Hospital College of Medicine, Louisville.

Kentucky School of Medicine, Louisville.

Kentucky University Medical Department, Louisville.

Louisville Medical College.

LOUISIANA.

Flint Medical College, Medical Department New Orleans University, New Orleans.

MARYLAND.

Baltimore Medical College, Baltimore.

College of Physicians and Surgeons, Baltimore.

Johns Hopkins University Medical Department, Baltimore.

University of Maryland School of Medicine, Baltimore.
 Woman's Medical College, Baltimore.

MASSACHUSETTS.

College of Physicians and Surgeons, Boston.

MICHIGAN.

Detroit College of Medicine, Detroit.
 University of Michigan Department of Medicine and Surgery,
 Ann Arbor.

MINNESOTA.

Hamline University College of Medicine, Minneapolis.

MISSISSIPPI.

Medical Department University of Mississippi, Oxford.

MISSOURI.

University of Missouri Department of Medicine, Columbia.
 University Medical College, Kansas City.
 Marion-Sims-Beaumont College of Medicine, Medical Department
 St. Louis University, St. Louis.
 St. Louis College of Physicians and Surgeons, St. Louis.

Washington Univ. Med. Dept.

NEBRASKA.

John A. Creighton Medical College, Medical Department of
 Creighton University, Omaha.
 University of Nebraska College of Medicine, Lincoln and
 Omaha.

NEW YORK.

University of Buffalo Medical Department, Buffalo.

NORTH CAROLINA.

University of North Carolina Medical Department, Raleigh
 and Chapel Hill.
 Wake Forest College School of Medicine, Wake Forest.

OHIO.

Medical College of Ohio, Medical Department University of
 Cincinnati, Cincinnati.
 Miami Medical College, Cincinnati.
 Cleveland College of Physicians and Surgeons, Medical Department
 Ohio, Wesleyan University, Cleveland.
 Western Reserve University Medical College, Cleveland.
 Ohio Medical University, Columbus.
 Toledo Medical College, Toledo.

OKLAHOMA.

University of Oklahoma Medical Department, Norman.

OREGON.

University of Oregon Medical Department, Portland.
 Willamette University Medical Department, Salem.

PENNSYLVANIA.

Western Pennsylvania Medical College, Medical Department
 Western University of Pennsylvania, Pittsburgh.

TENNESSEE.

Meharry Medical College, Medical Department Walden University, Nashville.

VIRGINIA.

University College of Medicine, Richmond.

WEST VIRGINIA.

University of West Virginia Medical Department, Morgantown.

WISCONSIN.

Milwaukee Medical College, Milwaukee.

Wisconsin College of Physicians and Surgeons, Milwaukee.