SCIENCE

A WEEKLY JOURNAL DEVOTED TO THE ADVANCEMENT OF SCIENCE, PUBLISHING THE OFFICIAL NOTICES AND PROCEEDINGS OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

FRIDAY, AUGUST 23, 1907

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MSS. intended for publication and books, etc., intended for review should be sent to the Editor of SCIENCE, Garrison-on-Hudson, N. Y.

VALEDICTORY ADDRESS TO THE GRADUATING CLASS OF THE JEFFERSON MEDICAL COLLEGE, PHILADELPHIA, JUNE 3, 1907

I HAVE been honored by the request of your institution to pronounce the valdictory address to the members of this year's graduating class, and it appears to me that I can best perform my duty by taking full advantage of the position which I occupy towards you and your alma mater. As you know the outsider sees most of the game, and coming before you as a stranger from a sister institution, keenly interested in the progress and development of medical science and medical teaching in our country, I can speak to you all the more freely and frankly of your relation to your academic foster-mother, of the value of the heritage which she to-day bestows on you, and of your obligations to her, present, past and future.

It is almost a misnomer to speak of a valedictory address to a class of graduating medical men. It is true that in one sense, the purely physical and narrow aspect, this day marks a profound change in your professional careers. You are about to close one chapter of a continued story. You bid good-bye to the lecture rooms and laboratories, to the hospitals and clinics in which you have received your preliminary training, and to the men who guided and directed your studies. And in turn, this venerable and honorable seat of medical teaching and learning, a landmark in the educational development

of our country, bids you God-speed, and offers you its commendation of work well done, its confident expectation of the equally successful work which it has a right to look for at your hands in the broader fields of your future activity. But the Jefferson Medical College does not say "Good-bye" to you, no more than you can, in the higher and broader sense of mental and moral activity, ever break the bond which you have here formed for all time. A valedictory must, under such circumstances, of necessity become a salutatory to the men who, having completed the preliminary stage of their professional life, enter into the full development and exercise of their chosen duties, a welcome to the broader expansion of their coming usefulness to mankind, a greeting of fellowship, not a farewell. It is not the bricks and mortar, the iron and stone of the Jefferson Medical College which your memory will hold among its most valued and cherished associations. No matter where your lot in life may place you, your thoughts and your hearts will turn, with the image of your alma mater before your mental vision, to the men you have here encountered, men who have taught you and modelled your lines of thought, men who stand to you as examples of success in the chosen field of their work, as standards of professional honor and of an honored profession, of upright life and dealing, of high place in their community. These are the men who have given to this college of yours, all through the long years of its honorable career, the high reputation and exalted standing of which you are to-day proud. That is what the Jefferson means to you, and will continue to mean all your life, and those ties are not broken by graduation. You, the most recent graduates, share with your predecessors, and will so share with those who are to follow you in the years to come, an heritage of untold value in the influence and incentive which your alma mater through these men has extended to your development.

But it seems to me that it is not enough for you to be merely justly proud of this association, to be satisfied with a grateful acknowledgment of your institution's services to you as undergraduates. Noblesse oblige—and I think that each one of you owes her a debt, which for value received in stimulation, example, incentive and education, you will try to discharge to the best of your individual ability. It is true, as we have just said, that the strength of a school lies not in the value and extent of costly buildings and equipment, but in the force, character and ability of the men selected to perform its work. That is clear, because they form a concentrated group, where the individual effort and the combined efficiency are evidenced in the daily contact with the student body and with the public at large. But it is also true that the real strength of a teaching institution is dependent in equal proportion upon the character and standing of the men sent forth from its training to their life's work. Their relation to their college is not so strongly in direct evidence, because they are distributed as individuals, but it is none the less real and vital. Their very dispersion affords the opportunity of carrying to all parts the influence and stimulation which they have received, the standards which they have been trained to hold in their work and in their broader relation to the community. Lowering of these standards, failure and inefficiency in the work—that is, perhaps you may think, a wrong which will primarily wreak itself on the individual at fault. But it has a more extended meaning, it carries beyond the mere personality involved, it is a wrong to the institution to

which you owe so much, who honors you with her endorsement to-day, who certifies for your efficiency to the public, who counts on you to uphold her high traditions, and who confides no small part of her reputation to your care and custody. And with the sense of this responsibility assumed on your part I give you greeting and welcome from the school which to-day awards to you its degree, and extend to you the fellowship of the profession whose ranks you to-day formally join.

And now permit me for a moment to look back on some of your personal experiences of the past four years of undergraduate life, and to ask you to consider and interpret them in reference to the influence they should exert on the shaping of your future careers. Any one of your various branches of study will furnish ample material to point my meaning, but let me draw my illustration from my own field and recall to your minds some phases of your anatomical studies. Probably, at the very outset of your anatomical work you were more or less confused and overwhelmed by the multiplicity of detail which you were called upon to master. Much of it undoubtedly appeared to you unnecessarily complicated, needlessly minute and exhaustive in description and classification. Eager for the practical application of knowledge, you possibly questioned the actual value of some of the information which, by the terms of your course, you were required to make your own. But let me ask you now, at the close of your successful preparatory period, to regard the hours thus spent from a slightly different standpoint and to draw from your experience a lesson for your future independent guidance and conduct. Remember, in the first place, that to many of you, at least, when you began your professional work as undergraduates of this school, methods of natural object study were new and the correct perspective difficult to acquire. Subconsciously, perhaps, you gradually came to realize the value of the training which these early anatomical exercises developed in the close association and coordination of brain, hand and eye.

It is quite true that to you, practitioners of medicine and surgery, much of the knowledge thus acquired will be of no direct practical use in its individual and concrete form. To the coming expert in internal medicine the foramina and processes of the sphenoid bone are of little importance, nor does the successful practitioner of midwifry find that his cases hinge on his knowledge of the terminal distribution of the ulnar artery. As stated thus boldly, this is undoubtedly true, but in drawing these conclusions you should not lose sight of some important facts.

In the first place, whatever special avenue of professional activity may open to you, the training which you have received here in mastering the details of organic structure, in correctly estimating the physical, mechanical and biological problems you will encounter, in analyzing the trend and the ultimate effect of a pathological environment on normal structures, these are the forces which your medical course has placed at your disposal, and your ultimate success will depend on the keenness, dexterity and judgment with which you employ them. It makes little difference how you have acquired the correct methods of study and interpretation, to what exercise you owe the delicacy of touch, the capacity for accurate observation and logical deduction. You have chosen an arduous profession. You have passed successfully through your preliminary training. You are fitted to begin your real work, but remember that this

real work, the work which in the end is going to count for you, for your institution, for your profession as a whole and for mankind at large, that work, as far as it may be placed in your hands, is just about to begin. And in that work the same methods that you have followed in your undergraduate course, of accurate observation and record, of close examination by sight and touch, of correct analysis and sound comprehensive synthesis, of reliable memory and logical deduction from established facts—these are the elements which will produce real results. The era of empiricism in medicine has passed for good and all, and to-day the practitioner of medical science must be a scientist in the true sense of the word and work by scientific methods.

Because of this fact I ask you to recognize the value of the training you have received and to realize that in no other way could the mental and physical aptitude for your work have been developed.

Again, let me point out to you what the acquisition on your part of sound methods of biological study means to you, as active participants in the steady advance of the future. As you look back over the earlier developmental stages of medicine your mind reverts to certain great landmarks, mile-stones in the natural progress of the science. You will think of asepsis, surgical anæsthesia, serum therapy and other great achievements in special fields. But consider the vast amount of infinite care and patience and keen reasoning which led up to these epoch-making advances, think how much close observation and correct experiment bridged the intervals between them.

Nothing in the biological sciences is so minute that it may be safely overlooked, nothing apparently so unimportant that it may be safely disregarded. A few years ago the parabranchial bodies were scarcely noticed or known. Contrast this with the modern parathyroid therapy of tetanus. And so I say to you again that, as you look back over your undergraduate course, the work you have accomplished should mean to you the preparatory training for the work now before you, and in whatever line you find that work, as your professional lives shape themselves, there you will use and further develop the methods of observation which you have acquired in this school.

A few days ago I received an abstract of a report covering the work of your department of general anatomy for the academic year just closing. To all who have the sound development of scientific medical education close at heart it is a most inspiriting document, both in the performance of achieved advance and in promise for the future. I venture to extend to this institution the cordial congratulations and full appreciation of a sister university for this material evidence of high standards and purposes. For we are all, individuals as well as schools, working for the common end, and the more complete our mutual faith and confidence is, the closer we stand shoulder to shoulder, the steadier and surer will be the advance of medical education and the resultant progress of the medical profession.

I can not do better than close my remarks to you with a quotation from the document referred to, in which your professor of general anatomy states:

> In this, the constructive period of the present anatomic course, the department recognizes that charts, drawings and models, however valuable they may be as aids to teaching, fail in replacing the actual structure for purposes of study and instruction. It is a cardinal principle of anatomic teaching that the student learns his anatomy chiefly in the dissecting room and in the section teaching. But the student can be assisted advan-

tageously by a well-equipped study collection, comprising not only preparations of adult human structures, but of comparative and embryonic material as well, arranged to illustrate the unity of plan in vertebrate structure.

I think this paragraph states as concisely and clearly as possible the twofold basis underlying all sound study and investigation, not alone in morphology, but in the whole range of the biological sciences, of which medicine is a part, *viz.*, close scientific observation of the actual conditions presented by any problem, and the correlated study of the developmental stages which have produced these conditions.

"Alles Gewordene wird erst verständlich in dem Werden" is the way a great German puts it.

To men who have been trained in these methods and principles, the Jefferson Medical College can safely and confidently intrust her future, in the full assurance that her high reputation will be sustained at their hands.

And so, once again, I bid, on behalf of the trustees and faculty of this institution, God-speed and good fortune to the members of the graduating class.

GEORGE S. HUNTINGTON
COLUMBIA UNIVERSITY

THE THIRTY-SIXTH GENERAL MEETING OF THE AMERICAN CHEMICAL SOCIETY

THE thirty-sixth general meeting of the American Chemical Society was held in Toronto, Canada, during Thursday, Friday and Saturday, June 27–29, the place of meeting being the chemical building of Toronto University. At the opening session Emerson Coatsworth, mayor of the city of Toronto, delivered the address of welcome. This was followed by a short address by Ald. J. J. Graham. A welcome on behalf of Toronto University was extended by Dean Maurice Hutton. These addresses were followed by a response on behalf of the members of the society by its president, Professor Marsten T. Bogert.

The members of the local committee were untiring in their efforts to provide for the comfort and entertainment of their guests. This meeting will long be remembered because of the generous hospitality extended to the visiting members.

Luncheons were served in the university building on Thursday and Friday by the courtesy of Toronto University. Thursday afternoon the members of the society were the guests of Mr. Edmund B. Osler, M.P., and Mrs. Osler at a garden party in the grounds of Craigleigh, at Rosedale. In the evening the members were entertained by the local committee and the commodore and officers of the Royal Canadian Yacht Club at Centre Island. In the earlier part of Friday afternoon, the society visited various industrial establishments in Toronto. Later in the afternoon the members of the society were the guests of the Lieutenant Governor of Ontario and Mrs. Mortimer Clark at the Government House. Friday evening the members of the society banqueted at McConkey's. On this occasion Professor Maurice Hutton, chairman of the local committee, proved himself to be a very entertaining toastmaster.

Saturday morning the society was taken to Guelph on a special train to visit the Ontario Agricultural College and Experimental Farm. Luncheon was served at the residence by courtesy of the college.

Saturday evening the visiting members began the trip to the Cobalt mining camp on a special train provided for the occasion. Temagami Lake was reached early Sunday morning. After breakfast a boat was in waiting to carry the society thirty-five miles across the lake to the Lady Evelyn Hotel, where dinner was served.

Monday morning the train reached the