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## PROSPECT AND STATUS OF INSTITUTE ATHLETICS

### Sane Development Has Led To Recognition Of Worth

By MAJ. F. H. BRIGGS

The past season a distinct advance has been made in Athletics at the Institute. The feeling of other colleges certainly is that we are on a higher plane than heretofore, and our membership in the I. C. A. A. A., coupled with the success of our Cross Country Team at the Annual Run, has done much to augment this.

I do not think that there are other sports than those which are now undertaken which could be carried on successfully at the Institute.

Football is almost out of the question, as men cannot practise advantageously as a team during October, sufficiently to compete with colleges on a par with ourselves in other lines of athletics. In other colleges the football team meets every day from the middle of September up to the latter part of November and practises every afternoon from two or three o'clock until dark. The impossibility of indulging in such practise at the M. I. T. practically bars us from undertaking to have a good team.

Track Athletics, and the sports incident to Field Day, are about all that we can safely undertake during the autumn without incurring dissatisfaction from the Faculty as to our athletic methods, which under present conditions have its sympathy and approval.

In winter sports, Hockey and Basket Ball have shown themselves to be worthy of continuance in the future, and now all that remains is to produce strong teams. Basket Ball, however, is looked upon in intercollegiate circles as rather a waning sport, and year by year one or more colleges drop out of the ring.

The co-operation established between the gymnastic and athletic interests during the past season has shown good results, and it is hoped that another year still greater advance may be made in this direction.

In the spring, Track Athletics are at their height, and the undergraduates can well look with pride on their progress in this line during the past few years.

The Lawn Tennis men have always supported this game very effectively and are worthy of greater recognition.

The Crew may be considered as being in an embryonic condition. If the results of the next two or three years show this interest well supported, and financially able to continue without aid from the M. I. T. A. A., it will undoubtedly be placed in the same category as Hockey and Basket Ball, which have undergone a similar experience.

We are, however, in my opinion, at a disadvantage compared with other colleges in attempting to have a crew or base ball nine. There is hardly another college in the country which closes its doors early in June and where the preparation for examinations begins by the middle of May. Subsequent to the middle of May is really the period when the crews and base ball nine of other colleges are in the later stages of development, whereas, at the Institute the season will just now be ended. It is hoped, however, that the crew will have better opportunities for competition in subsequent years.

Intra-Mural relations have been steadily augmenting from year to year, and it is particularly this line which the Corporation and Faculty wish to see developed to even a greater extent than

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## THE INSTITUTE A TRAINING GROUND FOR A LIFE OF ENERGY AND USEFULNESS

### The Scheme Of Instruction Is Not To Make Finished Engineers But To Start Men On Road To Success

Note:—This article is the result of interviews, suggestions and aid from men interested in various departments of the Institute. It is not intended to bring out new ideas but rather to collect and expound the principles of instruction that has been laid down from time to time by the men who have guided the Institute in the development of the educational policy.

"I am sure that I speak from no impulse of mere enthusiasm when I say that this new undertaking presents an opportunity of practical beneficence in connection with education which is not only peculiar but without precedent in this country. My experience as a teacher and my reflection on the needs and means of industrial instruction assure me that this enterprise, when truly understood must command the liberal sympathy of those who aim to make their generosity fruitful in substantial and enduring public good" ..... William B. Rogers.

The energies and powers of this one man started the movement that produced the Massachusetts Institute of Technology chiefly known through its activities as a School of Applied Science. Its development has been characterized by the elimination of the least important of the branches, as for example the Industrial Museum to make way for the more directly useful as the School of Applied Science.

Today, the Institute is turning out graduates from fourteen separate courses. With so many different branches it seems improbable that they can all be thoroughly successful. That such is the case is due to the underlying scheme of instruction common to all courses.

In breaking away from the so called classical scheme, the Institute did not adopt a narrower principle of specific details. It did not turn away from culture but sought to risk it by developing an appreciation of the principles of science and inspiring a zeal for their application to human nature, as well as to those practical problems of daily life which necessarily have an intense human interest. Therefore we find coupled, with the investigations into nature's laws, investigations of a general nature in economics, history, and languages. These are called general studies in contradistinction to "professional studies." But it must be realized that they are all "professional" even though they may not adapt themselves to the immediate consideration of employment after graduation.

Realizing that all real development proceeds more or less along these same lines, the first two years are taken up by all in the same manner. The first idea of developing a productive engineer is that he may conceive ideas. That is, he must be able to see a thing before he grasps it. Descriptive geometry we find as the recognition of this principle. Elsewhere, this subject has been taught by theorem and corollary as a pure feat of mental memory. Here, the idea is to prove the points by "visualizing."

The next point is the expression of ideas. An idea is worthless unless it can be communicated. This is not a one man world. It takes the co-operation of the many grouped around a common idea to produce a result. The first means of expression, is of course language. English therefore, is taught largely from a utilitarian standpoint. To be clear, concise, accurate, and effective are the ideals. Still, there is the further idea of the appreciation of the work of others, the best examples of course being the broadening

masterpieces of literature. The study of other modern languages at the Institute are of first importance as a direct aid to English and the various shadings of its meanings. Then, of course, comes the consideration, that not all people can understand or give us ideas in English. So that rather than get the ideas second hand the modern virile languages are studied to aid in cosmopolitan relations of study and business. The latter consideration is of particular importance in the opening up of commerce via the Panama Canal to the Spanish speaking or South American countries.

Physical training and military science must not be overlooked. Both are required in the freshman year. The former may be work in the gymnasium, or on the track, and recently, on the crew. Physical training goes hand in hand with mental training. The drill gives physical training also, but its main usefulness is in teaching to serve. The needs of the body, politic are also forwarded by the realization that the time may come when service to State or country must not find the reserve militia unprepared.

Another important means of expression, particularly for the engineer, is drawing, neatness and arrangement are here the prime considerations. In free hand, lettering is particularly emphasized and second because proportion can be learned from free hand letters which are not made by rule as by copying any other objects.

History is given with an idea of explaining past events in as much as they bear on the affairs of the day. By knowledge of what has gone before we are best able to judge of what results will follow our endeavors. Moreover, it gives great moral stamina to look back upon results achieved against great obstacles by the untiring energy of individuals.

Economics and business law show the relations of the endeavors of the individual to the good of the whole. Co-operation is again emphasized. "The engineers is the man who for one dollar does what any fool can do for two." The value of operations as well as the operations themselves are to be considered.

Aside from the broadening, these general subjects give the culture that makes a man, one who can get along better and consequently accomplish more with his associates.

Besides these studies, there are others of a more strictly utilitarian nature still taken by the majority. These are mathematics, physics, and chemistry.

The mathematical department has initiated a movement by the blending of the old divisions of College Algebra, Analytical Geometry, Calculus, and Differential Equations into one homogeneous course. The various phases are all treated, but their association with one another is constantly emphasized. This centralization has very beneficial effects on the student who can thereby easily get a comprehensive idea of the whole subject. The classes are small so that the individual can be given proper attention.

Chemistry is taught to all in the first year. It is the first subject giving an idea of the laws of nature. Its most closely allied subject is physics which is being more and more introduced into the courses in the second year. The now common laboratory method of instruction, inaugurated in this country by the Institute plays a very large part in these subjects. But it has never been carried to the extreme that would mean the sac-

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## THE ORGANIZATION OF THE INSTITUTE

### Relations Of Corporation, Faculty, Administration and Students

By PROF. H. W. TYLER

As Gaul was formerly divided into three parts, and as modern government is separated into the legislative, executive, and judicial divisions, so in the Institute we may differentiate the fundamental activities as educational, administrative, and financial. The last term is naturally too narrow for accuracy. From another point of view, the Institute is a great industrial establishment, of which entering students are the raw material, trained graduates the finished product, Corporation and Faculty, the personnel. The establishment is however run at a financial loss and must depend to a large extent on philanthropic support. The contrasts in this comparison are more marked and more important than the resemblances. Legally, the Institute is a corporation, authorized by the state to hold property for educational purposes, to carry on education, and to confer degrees. The corporation thus established consists of a president, of three representatives of the state, of not more than thirty-five life members, including the treasurer and the secretary, and of fifteen term members representing the alumni. The first term-members were elected in 1906. The alumni present each year five names to the Corporation, of whom three are elected for a term of five years. They are not eligible on retirement for immediate re-election.

The Corporation holds four stated meetings annually, but conducts most of its work through five standing committees and twelve visiting committees on the various departments of instruction.

Of the standing committees, the Executive Committee is by far the most important. Meeting ordinarily twice each month during the school year, and at times more frequently, it transacts nearly all the general business of the Institute, including such matters as appointments of officers of administration and instruction, determination of salaries and appropriations, etc. Initiative is also taken by this committee in the decision of such questions as the establishment of new departments, the erection of buildings, etc. The President and Treasurer are ex-officio members of the committee, and the other members are elected in rotation for five-year terms. The present committee includes three graduates of the Institute: Mr. W. B. Thurber, the Treasurer, '89 Mr. C. A. Stone, '88, and Mr. Frederick W. Wood, a term member, '77.

The other standing committees deal with Finance, Society of Arts, Auditing, and Nominations.

The administrative staff of the Institute consists of the President, and, on the educational side, of the Chairman of the Faculty, the Dean, the Secretary of the Faculty, the Registrar, and the Recorder; on the business side, the Bursar, the Librarian, and the President's Assistant. There is naturally also a large staff of clerical and other assistants, of janitors, carpenters, machinists, etc., the total number of such employees being at present about 125.

The work for which all this machinery exists is that of teaching and investigation, the rest is merely a means to this end.

The instructing staff consists of 44 professors, 14 associate professors, 32 assistant professors, 60 instructors, 51 assistants, and 18 lecturers.

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