

# THE TECH

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## GREAT ENGINEERS NEED IMAGINATION.

SAYS DR. HALE IN TECHNOLOGY REVIEW.

Tech Needs Course in Evolution and More Research.

Of special interest in the October Technology Review, which has just been issued, is a Plea for the Imaginative Element in Technical Education, by George E. Hale, ScD., LL. D., director of the solar observatory of the Carnegie Institution of Washington, a graduate from the Institute in the Class of 1890, Course VIII.

There are also articles on George Wigglesworth, who, on account of the increasing pressure of his own affairs, has been obliged to resign from the position of Treasurer of the Corporation, and on the new Treasurer, Francis Russell Hart, 1889, and the acting President, Arthur Amos Noyes, 1888.

General Institute news is next given in brief, and an account of doings of the undergraduates and graduates and news of the classes.

Mr. Hale brings out that Technology to produce great engineers must develop in its students breadth and scientific imagination. He says in part:

"There is no strong reason for the belief held, with few exceptions, by our ablest university presidents that an institute of technology should be essentially a graduate school, in the same rank with schools of law and medicine. For many years the best law schools have recruited their students from the graduates of colleges, and some of the leading medical schools have adopted the same principle. It has been felt that no amount of purely technical knowledge can replace the advantages of a broader culture and the better understanding of the affairs of the world which its possession implies.

It is possible that the average member of a technological school is in more danger of a narrow outlook than any other class of students.

"He does not yet know that to become a great engineer he should cultivate not merely his acquaintance with the details of construction, but in no less degree his breadth of view and the highest powers of his imagination. The greatest advances, whether in engineering, in pure science, in art, or in any other field, arise in mental pictures. It should be the purpose of the Institute to contribute to the world the largest possible proportion of men capable of conceiving great projects, and the smallest possible proportion of men whose ambition can be completely satisfied by the work of executing them.

"I believe that three means contributing toward the accomplishment of this result should be considered:—

"1. As a probable development of the future, the requirement of at least two years of general college work for entrance.

"2. As a partial alternative under existing conditions, the allotment of as much time as can be spared to general studies in the Institute's curriculum, and the creation of new opportunities outside of regular work, for developing the social and cultured sides of the student.

"3. As essential needs under all circumstances:

(a) Insistence upon the paramount importance of fundamental principles, as distinguished from specific facts and technical details.

(b) The fullest possible recognition and use of the educational value of science, both in its cultured aspects and in the means it affords of developing the reasoning powers and the constructive imagination.

"Let us consider these points in the above order:—

"It may be taken for granted that the progress of engineering will cause more and more difficulty in providing suitable technical instruction in a four years' course. The inevitable tendency is, therefore, for the purely technical courses to crowd out other work.

"It may be expected, then, that the future will see the best of the technol-

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## ENCOURAGING OUTLOOK FOR TRACK TEAM.

REVIEW OF FALL SEASON SHOWS WELL BALANCED SQUAD.

Has Received Some Valuable Additions From Freshman Class.

A general review of the track season this fall reveals a most encouraging situation. The squad that has been working all fall has been larger than ever before. The Freshmen have shown up remarkably well and with most of the men of last year's team back at the Institute such valuable new additions will help a great deal toward turning out a very strong team.

It is most gratifying to note the good work that Coach Kanaly has done this season, especially when it is considered that he was entirely new to the peculiar athletic conditions that exist at the Institute.

One of the most important things in connection with a team of any sort is the spirit that is shown by it in competition. With the regular track team this year the competitive spirit has been very prominent and that such is the case is most commendable. Very often this has not been the case with Technology athletics, but conditions this season are much improved.

With the start of the regular varsity track season the prospects are most favorable, and Captain Orr is to be congratulated on the fine opportunities that are open for him and his team this year. The team seems much better balanced than it has ever been in recent years and this is a factor that contributes in a great extent to the success or failure of any track aggregation.

The dashes, middle distance, pole vault and high jump will be taken care of by several of the veterans, Gram, Ginson, Capt. Orr, Rapelye, Blackburn, and Allen, who will be helped out by the work of several promising Freshmen.

As usual the hurdles, broad jump, and weight events are not in very good condition, but several very encouraging men have shown up for them this season. It is very possible that Coach Kanaly may be able to fill up these gaps in some way or other.

On the whole the outlook is very encouraging and Tech should have a high class and well-balanced team to represent it this year.

### HASTINGS, '07, MAKES COURSE POPULAR.

Grad of Institute is Building up Course at Bowdoin.

Under Hudson B. Hastings, '07, the new courses in mechanical drawing, descriptive geometry and surveying at Bowdoin have proved very popular. Twenty men are taking the course in mechanical drawing and descriptive geometry, and eight are taking surveying, which this year is only open to seniors. The courses were established so that men who are going to follow up the sciences may have the advantages of four years of liberal arts as a foundation for higher technical training. These courses also enable men to complete their studies in any of the leading technical schools of the country in two years.

Mr. Hastings is a graduate of Phillips Exeter Academy and of Course I. While at Tech he was president of the Civil Engineering Society, a member of the Banjo Club, a member and manager of the golf team, vice-president of the Co-operative Society and class day orator. Mr. Hastings aims to cover the same amount of ground in his courses at Bowdoin as is covered in similar courses at the Institute, at Cornell and at other leading technical institutions. Arrangements have been made whereby the authorities here have agreed to accept these courses at Bowdoin as the equivalent of similar courses so that a student having taken them at Bowdoin is able to complete the entire course of Technology in two years instead of four.

## SUMMER SCHOOL ADVOCATED AT CIVIL SMOKER.

SPEAKERS CALL ATTENTION TO SOCIAL SIDE.

Good Attendance at First C. E. Meeting of Year.

Monday evening the Civil Engineering Society held its first smoker of the season at the Union. The speakers were Professors Swain, Moore, Allen, and Porter. Pres. Parlin first called upon Prof. Swain, who, on account of a severe cold, confined his remarks to an expression of good-will to the students and belief in the value of the society, both socially and educationally. The next speaker was Prof. Moore, a new arrival this year from the University of Illinois. He spoke briefly on the professional societies at the different colleges with which he had been connected.

Professor Allen responded to the next call with an argument for the development of the social side of the engineer. The broadest men succeeded best, he said. At Tech, work stands first; it is what we came here for; but we can live only one life, and if we fail to get all we can out of it, we must blame ourselves. Prof. Allen advocated the professional summer schools as the best social enterprise connected with the Institute, and the professional societies next. He closed by pointing out the fact that Tech gets a better mixture of men than any other engineering school, as men come here from all over the earth.

Professor Porter spoke next on the same general topic. He mentioned summer school and the society, and said he believed the society would be more effective if its regular meetings were less like ordinary class exercises. He advocated dinners at the Union as often as possible, saying they would be easier, pleasanter, and more beneficial than afternoon gatherings in a classroom at the end of a hard day's work. His last words of the evening were to the effect that head-work, wisely directed, always gets there.

### CADET OFFICERS APPROVED.

Many Sophomores and Freshmen Receive Appointments

The following appointments to the M. I. T. Corps of Cadets have been approved by President Noyes:

Major, A. D. Keables; Chief Musician, R. K. Ames; Sergeant-Major, H. A. Sweitzer; Color Sergeant, W. K. Hodgman; Captains, C. N. White, J. T. Whitney, L. G. Rowe, and C. H. Shaw; 1st Lieutenants, W. N. Drew, E. J. Jenckes, R. H. Wilbur, G. E. Meirs; 2nd Lieutenants, W. J. Orchard, R. D. McIntyre, H. Schreiber, H. G. Reynolds; 1st Sergeants, L. B. Weeks, K. W. Faunce, C. S. Anderson, W. E. Connolly; Sergeants, Company A; C. L. Ofenstein, C. R. Perry, J. E. Rush, J. J. Devlin; Company B; C. P. Kerr, C. R. Johnson, E. D. Weisberg, K. Barr, Company C; D. N. Frazier, A. Morris, L. G. Glazier, G. E. Hodges, Company D; R. D. Francis, S. H. Cornell, J. A. Herlihy, R. H. Ranger, Corporals, Co. A; J. C. Creighton, J. F. Duffy, C. H. Merrill, D. P. Gaillard, A. F. Leary, Co. B; G. B. Forrestall, H. C. Davis, M. W. Hopkins, C. W. Eaton, H. J. Wood, E. J. Evans, Co. C; H. B. Knowles, L. P. Golden, S. H. Hartshorn, R. Emmel, W. L. Doane, W. Hildebrand, Co. D; R. H. Lord, R. E. Runits, O. W. Stewart, H. E. Babbitt, C. L. Pepper, P. E. Burnham.

### TECH Y. M. C. A. TO ATTEND.

The International Y. M. C. A. Convention will be held this year at Washington, D. C., Nov. 22nd to 26th. Any Tech men who can go down will be entertained by the Technology Club of that city. This is not only the best kind of chance to take this beautiful trip, but will help in a great degree to put Tech toward the front of Col- legiate Y. M. C. A.

## FRESHMEN HAVE A FORMIDABLE CLASS.

285 REPLY TO REQUEST FOR ATHLETIC STATISTICS.

Nine-Foot Five-Year-Old Still at Large.

The Freshmen Class is 5351 years old, 1615 feet tall, and weighs over 18 tons. So say the statistics which were handed in to the Advisory Council on Athletics by the new comers.

With his registration material, each Freshman received a card asking his age, height, weight, preparatory school, exercise habitually taken, and athletic training. 285 men were heard from, and the cards, which have recently been filed and tabulated, bring to light some interesting points.

The oldest man, according to the statistics, has seen twenty-six winters and summers, while the youngest is but five years old. This same infant prodigy professes to be nine feet tall and to weigh 145 pounds. It is feared that this side show attraction must have disappeared after registration, for he was not seen at Field Day. It will not be necessary to mention any names, but his initials were Harold M. Hallett. There are three sixteen-year olds; the average being somewhat over eighteen years and eight months.

There are two midgets in the class who claim to come under 5 ft. 1 in.; to date no one has been found to overtop the nine-foot boy. Freddie W., who stands 6 ft. 5 in. in slippers, is a poor second. Eight men considered their height so insignificant as not to be worth mentioning, but one had the forethought to say that his was "unknown." 5 ft. 8 in. was the average for the class.

In weight 1911 averages 140.3 pounds. In the heavy-weight class Clyde R., with his 224 avoirdupois, easily captures first laurels; the lightest boy barely tips the scales at 110.

The fourth question brought out much material on the popular idea of the best prep school for Tech. Among the more (Continued on page 3.)

### INSTITUTE COMMITTEE CHOOSES OFFICERS.

Rapelye 1908, Gram 1909, and Saul 1910, Elected.

The Institute Committee met for the first time Monday at 1 o'clock in the Trophy room. George Glover, 1908, called the meeting to order and nominations were opened for officers. Harry Rapelye, president of the Senior Class, was elected president, Carl W. Gram, 1909, was elected vice-president and Saul, 1910, was made secretary and treasurer.

The suggestions of THE TECH were spoken of favorably, but it was agreed to leave the business to be taken up at the next meeting.

### HARE AND HOUNDS HOLD LAST RUN.

Good Preparatory For Annual Handicap Race.

The Hare and Hounds chase this week will be at Highland Station, West Roxbury. A heavy trail will be laid over the eight mile course, over which is to be run the annual handicap race. There will be three hares. This is not a hard course, and the usual slow pace will be set. Since the Cross Country Team will have other work that day, M. Ames, 1908, last year's chase captain, will have charge of the run.

The object of the run is to familiarize the men with the handicap course. The importance of showing up Saturday is obvious when it is recalled that one man failed to finish in the race last year because he lost his way. The handicap run comes off this year on Nov. 30. Several handicaps are given each year, so that every man has a show, no matter how slow he is. Three prizes are given, for first place, second place, and for the fastest time. The insignia etc is given to the four men making the best time. The entry fee will be 50 cents.