

# THE TECH

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## PLANT TESTS.

Seniors Testing Plants at Haverhill and Waltham.

As the thesis work of some of the seniors, there start today two seventy-two hour plant tests. Both are on electric power plants, one at Haverhill and the other at Waltham. Beside the seniors who are running the tests, there are many juniors and under-graduates who will also take part as assistants. These latter will act as observers and will be assigned to the different eight-hour shifts into which the tests are divided.

The Haverhill test is being conducted by Whitney, Dean, Tylee, Frank, Pease, and Keeling, all '07. The plant is one of three thousand kilowatt capacity. The generators are of two kinds. There are two five-hundred kilowatt, direct current units, belt connected to compound engines, and two Westinghouse-Parsons turbines, each direct connected to a sixty cycle, one thousand kilowatt generator. These latter produce a three phase alternating current at a tension of twenty-three hundred volts. The exciter set is composed of induction motor-generators, with steam power in reserve. The plant furnishes current for private and municipal lighting in the city of Haverhill, and arrangements are now being made to use it for traction purposes also. The test includes examination of every phase of operation from the fuel used to the current produced.

The test on the Waltham plant is of the same order and duration. It will be conducted by Macomber and McChesney of the Electrical Department and Packard and Nichols of the Mechanical Department. The plant which is of one thousand kilowatt capacity is a new one, having been constructed only last summer. It is built of reinforced concrete and equipped with the newest type of machinery. The generating units are two Westinghouse steam turbines, direct connected to twenty-three hundred volt, three-phase alternators, each of 500 kilowatt capacity. The plant primarily furnishes power for lighting, but a considerable proportion of the current is used for traction purposes. When so utilized it is changed to direct current at five hundred volts potential, by means of rotary converters.

On both of the tests described there will be an auxiliary test on the turbo-units operating under from one and one-half load, to one-quarter load. Both saturated and super-heated steam will be made to ascertain their performance under varied conditions.

Columbia and Yale Universities have concluded an arrangement to carry on in co-operation a series of courses in preparation for the consular service. Columbia offers the larger share of the language on the economic side. Students who complete the course will receive certificates issued by both universities jointly, and higher degrees will be awarded when the requirements are fulfilled by the university at which the major part of the work is done.

## CROSS COUNTRY INSIGNIA.

Freshman-Sophomore Run to be Held April 13.

It was unanimously voted at the Cross Country Association meeting on Wednesday to change the constitutional provision regarding the election of the captain. The new arrangement is to have the captain elected by the team instead of by the Association as has heretofore been done.

It was voted that the Freshman-Sophomore Cross Country run should be held on Saturday, April 13, and should be run over the Harvard course, which is about four and a half miles long.

The run arranged for tomorrow will be a very easy preparatory jog over a course at Hyde Park. The run will only be about four miles and will not be a hard one in any respect. The train leaves Back Bay station at 2.19 Saturday afternoon. It is desired by the management that all prospective candidates be present.

As a result of last fall's cross country work, several new awards of insignia have been made. The revised list of those entitled to wear the letters is as follows:

Entitled to wear the "T": C. W. Beam, '07; G. H. Chapman, '07; M. E. MacGregor, '07; S. M. Udale, '07; H. R. Callaway, '08; B. L. Gimson, '08; H. H. Howland, '08.

Entitled to wear the "cTc": E. S. Campbell, '06; O. H. Starkweather, '07; H. E. Allen, '08; C. L. Batchelder, '08; C. S. Clapp, '08; R. W. Ferris, '08; H. J. Ruggles, '08; R. E. Ellis, '09; J. N. Stephenson, '09; E. L. Patch, '10.

## SOPHOMORE BASEBALL PROSPECTS.

At a meeting of the 1909 baseball squad on Wednesday, Kelly was elected captain for the ensuing year. Manager Applin has succeeded in arranging a good schedule, beginning on April 2 and extending to the end of the term.

The prospects of a good team are much brighter than before, as several new candidates for pitcher have reported, a lack of experienced pitchers being a weakness last year.

The candidates out for the infield are practically those who made the team last year. Landis who played third base has left the Institute, and Perry is out to compete for this vacancy. The batteries have already begun light work, so as to be in good condition when practice is called at the Field. Among those who have already reported are: Applin, Nichols, Kelly, Wentworth, Sherman, Perry, Gram, and Sharp.

## YALE CREW CAPTAIN RESIGNS.

Robert H. Noyes, '08, has resigned as captain of the 1907 Yale crew. He has found it necessary to leave his place in the boat on account of physical condition and consequently to resign the captaincy. The action is of particular interest when it is remembered that no Yale captain has ever had to resign before.

## WOOD DISTILLATION PROCESS

Address by Mr. W. E. Lummus at the Chemical Society Smoker.

"Wood alcohol is essential to the manufacture of a great many finished products," said President W. E. Lummus of the Commonwealth Manufacturing Company, in a talk to the Chemical Society Wednesday night at the Union. After showing its importance in commerce, he explained how the distillation of wood is carried on in great steel retorts built in masonry furnaces. At 300 degrees Fahrenheit the distillation begins, and at 600 degrees the gases forming the distillate are drawn off through pipes and condensed. A dark, heavy liquid is obtained, from which tar, acetic acid, and wood alcohol are distilled. Acetic acid is used in the white lead and textile industries. Charcoal is finally left in the retort, being used in the metallurgy of iron.

Large plants have recently been established in Wisconsin and Michigan which compete successfully with the older works in Pennsylvania and Europe. Refining is generally done in plants near large cities where the refined products can easily be distributed. It is a costly and complicated process and the demand for wood alcohol of all grades is exacting and varied. There is a splendid chance for the development of the industry. Vast improvements have been made during the past few years especially in the process of refining.

## PROF. SEDGWICK AT Y. M. C. A.

Prof. W. T. Sedgwick of the Biological Department addressed the Technology Y. M. C. A. at yesterday's meeting in Trinity Church, taking as his theme the "Essence of Christianity" as applied to the world of today. He began by comparing the old world principles of Buddhism with those of Christianity and then spoke of the principle of Christianity as evidenced in every day life and at the Institute.

The Essence of Christ and Christianity is the standard for unselfishness, which is such an important motive in the modern world. Whether one agrees or disagrees with certain church creeds is not the point. It is whether he is an ideal follower of Christ, not looking out for himself alone, but reaching out to help the world.

At the meeting next Thursday the Y. M. C. A. will be addressed by Rev. James Alexander of the First Presbyterian Church.

## OHIO CLUB DINNER.

The Ohio Club held its second dinner of the year last night at the Union, about twenty members being present. President S. R. Miller '07, presided.

Five acres of land valued at \$300,000, have been left to New York City University for a campus, by Mrs. Russell Sage.

Missouri University has established a chair of journalism.

## CALENDAR.

FRIDAY, MARCH 22.

- 4.00 P.M. *Technique* Electoral Committee Meeting in 36 Rogers.
- 4.00 P.M. Mandolin Club Rehearsal in 31 Rogers.
- 4.00 P.M. Professor Bates speaks on Thomas Bailey Aldrich in Huntington Hall.
- 4.15 P.M. Tech Show Chorus Rehearsal at the Union.

SATURDAY, MARCH 23.

- 2.19 P.M. Cross Country Team leaves for Hare and Hound Run at Hyde Park.
- 2.30 P.M. Tech Show Principals Rehearsal at the Union.
- 6.30 P.M. 1910 Kommers at the Union.
- 8.00 P.M. Fencing Meet with Columbia and Yale at the Gym.

MONDAY, MARCH 25.

- 1.00 P.M. Meeting of the Board of Editors of THE TECH in 30 Rogers.
- 4.00 P.M. Banjo Club Rehearsal in 33 Rogers.
- 4.00 P.M. Mandolin Club Rehearsal in 31 Rogers.
- 4.10 P.M. Prof. Swain's Reading in 11 Eng. B.
- 4.15 P.M. Tech Show Chorus Rehearsal at the Union.

## FACULTY NOTICES.

**Second Year English Literature.**—Professor Bates' Section (Courses VI, VII, XIII A-K) will meet Friday, March 22, in 23 Walker.

**Prof. Bates on Aldrich.**—Professor Bates will speak informally on Thomas Bailey Aldrich today at four o'clock, in Huntington Hall. All students are invited.

## NOTICES.

**Evening Work.**—Several men wanted for evening work on a printing press. Inquire at the Dean's office.

**M. I. T. Rifle Club.**—The Rifle Club will hold its usual shoot Saturday at Walnut Hill Range. The train leaves North Station at 2.00 P.M.

**M. A. H. S. Club.**—The second annual dinner of the M. A. H. S. Club will be held at the Union Wednesday, April 3, at 6.30 P.M. Tickets 50 cents. Please purchase in advance.

**Geological Journal Club.**—The Geological Journal Club will meet today in 14 Pierce. Willcomb '07, will review a paper on "Radio-Activity and Vulcanism," and a paper presenting a new theory as to the cause of the glacial era will be discussed.

The Technology Catholic Club held its regular meeting Wednesday evening in 16 Rogers. The chief feature of the evening was a talk by Rev. Father Leahy of St. John's Seminary, on "Science and Revelations." His subject was the nebular hypothesis of Kant, Herschel and LaPlace, which he explained in a very interesting and convincing manner, taking it up from several viewpoints. After this address it was decided, with the advice of Father McCarty, that the Tech Catholic Club should receive communion in a body at the 8 o'clock mass next Sunday, meeting for that purpose at the Cathedral at 7.55.