

THE TECH

VOL. XXVI. No. 41

BOSTON, MASS., FRIDAY, JANUARY 4, 1907

PRICE THREE CENTS

SENIORS HARD AT WORK.

Practical Experience Found in 96-Hour Plant Test in Lowell Building.

The 96-hour plant test now going on in the Lowell laboratories, started at 8 A. M., Tuesday, and will end at the same time on Saturday. The men taking part are Seniors from Courses II, VI, X, and XIII, 138 in number, working in eight-hour shifts.

The plant on which the day test is made consists of a battery of two 250-horse-power Babcock & Wilcox water tube boilers, and a 750-horse-power, horizontal, cross-compound Russell engine, direct connected to a 480 kilowatt, double-current, General Electric generator. This large engine is run during the day with the larger loads while toward evening, two 125 horse-power Westinghouse compound engines are thrown in. These smaller engines are direct connected to a 75 kilowatt, three wire Westinghouse generator.

The boilers of the plant are used to furnish the steam for the heating and for the experimental work of the Engineering buildings, as well as for all of the power in the Electrical Laboratory. The boilers are run with forced draft, with about 2 inches air pressure under the grates. The coal and ashes are weighed, temperatures of the feed water and of the air inside and outside are taken, as well as the temperature of the flue gas. The flue gas is analyzed to ascertain whether too much or too little draft is being used, the criterion being the amount of free oxygen present.

In the engine tests, indicator cards are taken from both ends of all cylinders, mean effective pressures computed, and the condensed steam from the condenser accounted for. Readings of the electrical output and of the steam used for auxiliary purposes are measured, so that data to compute the efficiency per kilowatt hour is obtained.

The results of this test will be worked out by the students, giving them an immense practical insight into the theoretical knowledge that has been obtained in their previous courses. These tests are of great value to the Institute also for it has been through such tests in the past few years that the output of the plant has been greatly increased, the coal and water consumption cut down, and the cost of power and lighting greatly decreased. The men in the lower classes of the courses in which such work comes in will find it worth their while to visit the plant and see how things are conducted.

Y. M. C. A. MEETING.

Rev. A. A. Stockdale spoke on "Saved" at the regular meeting of the Tech Y. M. C. A. yesterday noon, in the Parish Hall of Trinity Church. At the meeting on next Thursday, Mr. Stockdale will conclude his series with a talk on "Faith," the last to be held in this term.

Found.—A green bag belonging to a Freshman has been found on the street and can be had by applying at the Bursar's office.

TRACK TEAM.

Large Number of Candidates Training for Indoor Meet.

Indoor track work in preparation for the winter season began this week at the Gym. The first call for candidates was made several days before the Christmas vacation, but there was little practice because of the intervening holidays. The men have settled down to hard work, and Coach Mahan has been putting the various candidates through preliminary training.

The number of old men back, and a large quota of new men to draw from, the outlook for the season is bright. Of the relay team that did such good work in the B. A. A. against Bowdoin last year there are three members back at school this year, while many of the old point winners against Tufts have again put on the shoes. The event that arouses interest at the present time is the interclass championship indoor meet which comes off next Tuesday evening, as the spirit of rivalry is running high between classes.

Of the relay team the following men are out: A. L. Moses, '09; R. B. Todd, '08, and H. W. Blackburn, '08. The other candidates for the team are K. D. Fernstrom, '10; J. Avery, '10; H. J. Wertheim, '09; C. W. Gram, '09; F. B. Avery, '10; R. L. Pope, '10. All of these are to enter in the short sprints.

The following are some of the experienced men who are out: H. A. Rapelye, '08; T. Orr, '08; C. A. Eaton, '07; B. L. Gimson, '08; A. L. Dickerman, '09; H. E. Whittaker, '09; G. S. Gould, '07; J. H. Critchett, '09; C. W. Morrison, '08; G. Schobinger, '08; R. C. Albro, '07; H. H. Howland, '08; R. Ellis, '09; S. M. Udale, '07; R. W. Ferris, '08; H. L. Sherman, '09; H. Allen, '08; P. L. Cummings, '10; B. F. Courtney, '10; J. M. Fitzwater, '10; F. J. Friedmann, '08; J. Tetlow, '07; G. H. Buckingham, '07; H. Y. Frost, '09; M. E. MacGregor, '07; R. H. Allen, '09. All of these men have made a mark in track athletics at the Institute either on class teams or on the varsity. Besides these it is expected that there will be a number of new men show up in the next few days.

Walter Camp, in Chicago, gives out the following interview: "From expressions of spectators at the great games in the East this fall," he said, "the new rules will find hearty favor with the people, and the people make or unmake any game of sport. In the new rules we have plays that can be made far easier than under the old rules. Forward passes, the 10-foot rule, and three downs, and, in many other instances, under the new rules, give greater scope for better playing. The game has taken on life that will make it a highly favorite one with the public under the new rules. In the East the people are delighted." Camp said that a few changes in the rules might be made—"but not," he added, "until the present ones have been thoroughly tried out."

1909 KOMMERS.

Sophomores to Entertain Some Saturday Evening Next Term.

1909 held a Class Meeting yesterday noon in Huntington Hall to determine whether or not they would take charge of a Kommerz. R. H. Allen, one of the Sophomore members of the Institute Committee, spoke of the plans for the Kommerz next term, and expressed the desire of the Committee to have the class take charge of one night. K. D. Godfrey moved that a committee of three be appointed by the President to arrange for an '09 Kommerz to be held next term. The motion was carried, and President Moses appointed K. H. Allen and B. E. Hutchinson to act with himself on that committee.

CABLE SAMPLES FROM BERLIN CO.

The electrical department at the Institute has received a valuable set of samples from the Allgemeine Elektrizitäts-Gesellschaft, Berlin showing how cables for power transmission and telephone work are built up. In the case of power transmission cable, a single wire of 2.17 millimeters is shown first and then a conductor made up of a system of nineteen of such wires, three of these conductors are then shown insulated and assembled, and then the various methods of insulating the cable and protecting it from weather and electrolysis are illustrated. The final sample is so cut that sections of each layer can be seen. This cable is made to carry a 10,000 volt three phase current, with special construction for high tension. The building up of the telephone cable is shown in the same way from the single wire up through the various steps in the insulation to the final, steel cased, bundle of wires. This cable is made up of 200 pairs; each being most carefully insulated.

ADDRESS TO CATHOLIC CLUB.

The Hon. Herbert S. Carruth, ex-alderman and the present head of the Boston penal institutions, gave a forceful talk on "Catholic Leadership" before the monthly meeting of the Catholic Club last Wednesday evening in 16 Rogers.

Mr. Carruth first spoke of the great prominence that the Roman Church had held through the various periods of European history, and especially pointed out the fact that the church had always fostered the arts and sciences. He then said that at the present time the Catholic body stood at a turning point; either it was to keep up this former prestige and leadership or become subordinate.

There is a great need of strong Catholic leaders in all phases of modern life. The most dire need is manifest in the politics of the large cities, especially in Boston where there is such a large Catholic population. Many of the men who are of the Catholic faith and hold offices in the government, cannot be trusted with a small sum of money, and are not worthy to carry on the business of a great city.

CALENDAR.

FRIDAY, JANUARY 4.

4.00 P.M. Mandolin Club Rehearsal in 31 Rogers.
4.15 P.M. Glee Club Rehearsal at the Union.
7.00 P.M. Civic Club Meeting in 16 Rogers.

SATURDAY, JANUARY 5.

3.00 P.M. Basketball, Tech 2nd v. Malden High at Malden.

MONDAY, JANUARY 7.

1.10 P.M. Meeting of THE TECH Board in 30 Rogers.
4.00 P.M. Banjo Club Rehearsal in 33 Rogers.
4.00 P.M. Mandolin Club Rehearsal in 31 Rogers.
4.15 P.M. Glee Club Rehearsal at the Union.
7.30 P.M. Texas Club Meeting in 16 Rogers.

FACULTY NOTICES.

Military Science.—The officers of the Freshman Cadet Battalion are requested to study "Battalion Parade" for the next drill exercise.

Color Photography.—The lecture in Color Photography will be given in 22 Walker, at 4.10 P.M. on Jan. 10. Persons interested are invited to attend.

First Year.—First year students are expected to take at the end of the present term all entrance examinations in which they have not already clear records, with the following exceptions:

1. Special students taking no work dependent on such entrance subjects. Such students if they desire to become regular may take remaining entrance examinations in June or September, this applying particularly to entrance French, German, and Physics.

2. Students who are now making up entrance French and German by taking the elementary course.

3. Students entitled to excuse from particular entrance conditions on the basis of good term work. This applies to conditions in entrance Algebra, English, French, German, and Plane Geometry, and students will be notified if excuse can be given.

NOTICES.

Notice.—1007 Class Day Ballots must be in at the Cage at 12 o'clock, Saturday, January 5.

1910—Voting for Institute Committee opposite the Cage, Saturday from 12 to 1, Jan. 5, 1907. All members who have paid their class dues are eligible to vote.

Technology Club.—On the sixth evening of the season, Tuesday, Jan. 15, at eight o'clock, Senorita Carolina Holman Huidobro, of Chile, will give a talk, illustrated by the stereopticon, on the "Marvels and Wonders of Peru." Members are privileged to invite ladies to the talk and to dinner on that evening. The "common-room" being limited, admission for both members and guests must be by ticket. Members may receive tickets by sending to the Secretary applications, with stamped addressed envelopes, before Jan. 11,