

THE TECH

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1913 VS. TEXTILE FRESHMEN VICTORS

Score 11-0--Reverses Outcome Of Lowell Game Last Saturday

In the 1913 game Saturday against Lowell Textile at Lowell the Freshmen practically reversed the score made by the Sophomores just a week ago. Saturday's score was 11-0 in favor of 1913, while the Sophomores were defeated by a score of 15-0. It was a good game and the Freshmen showed up to good advantage.

There were two touch downs made, first by Goff and the others by Eicheron. Goff kicked a goal.

The line-up follows:

Freshmen. Lowell Textile.
Block, Cahill, r.e. l.e., Keough
Freman, r.t. l.t., Middleton
Murdock, Capen, r.g. l.g., Zoebel
Gustin, Gibson, c. c., McCleary
Gibson, Gage, l.g. r.g., Hassett
Beebe, l.t. r.t., Sidebottom
Gans, l.e. r.e., Smith, Burnham, Hale
Fallon, Duffy, q.b. q.b., Manning
Goff, r.h.b. l.h.b., Jefferson
Eichorn, f.b. f.b., Harrison, Smith
Referee--Huegin. Umpire--William.
Head Linesman--Bob White. Linesmen
--Brady and White. Timers--Seed and
Wahl. Time--Twenty-five and twenty-
minute halves.

GOLD STAMP MILL TO BE RUN TUESDAY

On Tuesday the Gold Stamp Mill will be run. The primary object of this is to give the men of Course III a conception of what a real stamp mill is, and of the various processes through which the ore goes before it is converted into bullion.

It is a two stamp mill, and is run only once a term. The men go on duty at half past eight in the morning and continue until half past three in the afternoon. Every half hour during the process the men are required to move around to a different position and each is expected to know all about that position, and thoroughly understand, the parts of the mill at which he has been stationed.

The ore is fed into the mill, the principle of which is exactly analogous to that of the pile driver. The hammer is raised by a revolving cam and then drops upon the ore. The ore, all of which has been assayed, and which is weighed before putting in, is retained in a large receptacle through which water circulates. The continual movement of the water due to the crusher, brings the loose particles of the gold at some time, to the entrance of the overflow pipe, down which they are carried by the water. This stream flows over mercury with which the gold particles amalgamate. At the end of the process the bullion is weighed and this result compared with the amount which, according to the assay value, should be present. This comparison gives the percentage of extraction.

The list of men and their assignments will be posted on the bulletin board.

Several committees have been appointed at Princeton to investigate the regulation of student affairs. The same conditions are prevailing as there were at Tech before last year. Many students have assumed too many social responsibilities at the expense of their studies.

The point system which the Institute has adopted is securing careful attention, although nothing definite has been done as yet.

TECHNOLOGY EXHIBIT IN 1915 EXPOSITION

Takes Prominent Part In Both Educational And Church Features

The Boston 1915 Exposition opens today in the old Art Museum building. Technology will be well represented with the largest exhibit among educational institutions.

The Institute exhibit is under the direction of Prof. C. F. Park, assisted by Dean A. E. Burton and Prof. Harry W. Gardner. This committee has arranged table exhibits of apparatus, drawings and students' work, showing the results of research work. Photographs of the buildings and equipment, together with charts indicating the growth of the Institute in the last 25 years will be displayed.

Besides its exhibition in the Art Museum, the engineering laboratories in the Engineering and Pierce buildings, and the electrical engineering laboratory in the Lowell building will be open two nights each week.

A number of instructors will be in the laboratories to explain apparatus and to take charge of the tests which will be made on a number of machines. Students will also be present to serve in conducting the visitors through the various rooms. Tickets to the laboratories may be obtained at the exhibit space in room 23 of the main floor.

This exhibit should serve to bring the Institute before the public and to advertise its special advantages and the work it is doing. The showing will be both interesting and instructive.

Technology men have also assisted in the church exhibit. Several of the men, together with girls from Simmons and Emerson Colleges, have aided in the preparation of moving pictures illustrating the influence of the Christian church in history.

The work is under the charge of Dr. O. B. Denison, pastor of the Central Congregational Church and consists of four scenes. The first series shows Ambrose the bishop stopping the Roman Emperor, Theodosius, at the church entrance and forcing him to assume the garb of a penitent because of his crimes. Another is called the charity scene and depicts the distribution of alms by the church. A third represents the court of Charlemagne, in which he, the powerful sovereign, offers his throne to Alquin, the head of the church university. The last film shows the Knight Templars rescuing a party from the Moslems.

AT THE THEATRES

Park--"A Gentleman from Mississippi." 8 P. M. Matinee at 2.
Colonial--Elsie Janis in the "Fair Coed." 8 P. M. Matinee at 2.
Boston--"Three Twins." 8 P. M. Matinee at 2.
Majestic--"The Rose of Algeria." 8 P. M. Matinee at 2.
Hollis--"A Woman's Way." 8:15 P. M. Matinee at 2.
Tremont--"The Love Cure." 8 P. M. Matinee at 2.
Globe--"The Blue Mouse." 8 P. M. Matinee at 2.
Castle Square--"A Parisian Romance." 8 P. M. Matinee at 2.
Boston Opera House--"Li Gioconda" (in Italian). Nov. 8. 7:45. "Aida" (in Italian). Nov. 10. 8 P. M. "Lakme" (in French). Nov. 11. 8 P. M. "La Boheme" (in Italian). Nov. 12. 8 P. M. "Lakme" (in French). Nov. 13. 2 P. M. "Aida" (in Italian). Nov. 13. 8 P. M.
Keith's--Vaudeville. 8 P. M. Matinee 2.
American--Vaudeville. 8 P. M. Matinee at 2.

PRIZE SHOOTING AT WAKEFIELD RANGE

Capt. H. R. Wilbur Breaks Record--More Men Qualify For N. R. A. Buttons

Capt. Harold R. Wilbur 1910, of the M. I. T. Rifle Club, broke the record in match A of the club at the weekly shoot at the Wakefield ranges yesterday afternoon with a total of 67 on the 200-300 and 500-yard ranges. Regulations for match A are two sighting shots and five shots for record, and the best scorer of the season is given a bronze medal.

Ralph A. Smead 1910, also made a score of 67 in match C for new men. His totals on the 200, 300 and 500-yard ranges were respectively 21, 22, 24. Wilbur shot as follows: 22, 23, 22.

These scores are considered good under the conditions, a variable cross-wind blowing over the range throughout the shoot. The following new men qualified for the buttons given by the National Rifle Association for work on the three ranges: Henry D. Kemp 1911, 19, 19, 19; R. A. Smead 1910, 21, 22, 24; R. T. Portal 1913, 18, 15, 22; and J. G. Rudolph 1913, 15, 16, 22. The shoot for the open competition medal of the National Rifle Association to have been held yesterday by the Tech Club, has been postponed until next Saturday.

SUMMER RESEARCH

Assistant In Physics Measures Film Thickness In Bearings

Investigations completed in the Mechanical Engineering Laboratories during the spring and summer by Mayo D. Hersey, '09, were the outgrowth of meeting the usual problems of journal friction on an occasion of machine construction some time before, and of considering them theoretically in 1908. Mathematical analysis made possible an electrical method of measuring the actual thickness of the oil film at the point of nearest approach of brass to journal.

The question of journal friction is one of the most fundamental, and at the same time the most complex and baffling, with which engineers have had to deal. Logically there should be two methods of attack: first, to investigate the conditions of minimum friction in bearings already built; second, by investigations of the seizing point, to determine better rules for design. Curiously, past experiments have been confined to the first method, although the second would seem the more fruitful. For, while it is the problem of the operating engineer to select the best lubricant, the designer has to decide the more vital question of how many pounds load to allow per square inch. And if, by good judgment, the former may reduce the friction a few per cent., the latter by his dimensioning of the bearing, can multiply or divide the friction by hundreds of per cent.

Hersey believed that, without producing actual "hot-boxes," investigations of load-carrying power might be made which would yield information designers are waiting for. The designer must strike a compromise between long bearings, with excessive friction, and short bearings, with concentrated load. Usually the allowable pressure, or carrying power, has been limited by heating, and assumed to vary inversely with speed, resulting in low efficiency at high speeds. But experiments in Germany have recently shown how to escape the

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SOPHOMORES LOSE TO EXETER; SCORE 10-0

Robinson Makes 40-Yd. Run Prep. School Much Heavier

Exeter succeeded in crossing the sophomores' goal twice in a hard fought game last Saturday. One touchdown was made in each half, both being made on intercepted forward passes.

In the first half 1912 punted on its 20 yard line, Exeter fumbled the ball, Robinson recovered it and ran it down the field for forty yards, until downed on Exeter's 15 yard line by Cornell--Exeter's 10 second man. This was the most spectacular event in the game.

Toward the end of the first half Exeter scored on an intercepted forward pass when the whistle blew, but failed to kick the goal. In the second half Exeter made another touchdown on a forward pass.

Barnes made consistent gains through the line and Torrey and Robinson excelled on the defense. Although much heavier than the sophomores, Exeter was unable to gain through the line or around the ends, but was forced to punt or use the forward pass.

Contrary to expectations, Exeter played her regular team, with the exception of three men. It was the cleanest game the sophomores have played this year and the members of the team are enthusiastic over their reception by the Exeter men.

The lineup:--

Exeter 1912
Gillis, l.e. r.e., Torrey
Holbrook, l.t. r.t., Swanson
Cooney, l.g. r.g., Shuttleworth
Cody, c. c., Whittlesey
Mitchell, r.g. l.g., Robertson
Kirkpatrick, r.t. l.t., Stickney, Kimball
Faulkner, r.e. l.e., Robinson
O'Brien, q.b. q.b., Eicher
Wilson, l.h.b. r.h.b., Roberts
Pierson, r.h.b. l.h.b., Raymond, McOscar
Cornell, f.b. f.b., Barnes
Score--Exeter, 10; M. I. T. 1912, 0.
Head linesman--Kebbon.

IMPORTANT GOLF CLUB MEETING AT 1 O'CLOCK

There will be an important meeting of the Golf Club in Room 22 Rogers Building at 1.00 P. M. today. The purpose of this meeting is to make arrangements for a tournament as soon as practicable. The club held its first meeting on October 12. W. C. Salisbury 1911 was the only man at the Institute who remained from last year's team, so that most of the planning and organization has fallen to him.

At a subsequent meeting the question of the links which would be used came up, and it was then decided that as soon as this point was arranged satisfactorily that a tournament would be held if possible. There will be a team chosen from the members of the club which will probably play the various college teams near here. It is very urgent that all members report at this meeting, since the question is an important one and the co-operation of the entire club will be required. This tournament will have a great deal to do with the choice of the team, so that enough men should report to make some competition.

Today is the only day left in which to raise the \$500,000 for the Y. M. C. A. Everybody help!