

# THE TECH

## DAILY

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PRICE ONE CENT

### 1910 AND 1913 WIN. DUAL MEET AT FIELD

### Swamp 1911 And 1913 By A Total Of 100 Points Over Their 39

In the first inter-class dual meet at the Field Saturday afternoon the sophomores and seniors succeeded in completely downing the freshmen and juniors.

Although very few men reported, all the events were interesting and closely contested. The first events were the trials for the 100-yard dash. Three men ran the first heat and the race was not won until C. E. Trull 1913, broke the tape. The second heat was not so close, four men ran, M. A. Oettinger 1912, winning.

The final was very interesting, C. E. Trull took the lead at once, but was pushed hard by the other men and finished first, just a few feet ahead of the second man.

The mile run followed this, with four men in the race. The men kept well together until the last quarter mile, when R. M. Ferery 1912, finished with a sprint and won by twenty-five yards.

Two men only went over the high hurdles and H. S. Gott 1910, was an easy victor.

In the half mile W. Byland 1913, set a terrific pace at the start, but before the first quarter settled into a lighter pace. He was passed by H. Lockett 1910, and W. S. Davis 1910. Lockett, however, dropped out and Davis won first place.

In the quarter mile, J. P. Maxfield 1910, started out to take the lead, he retained this position and finished first, just ahead of M. A. Oettinger, who tried hard to catch him in the last fifty yards.

In the low hurdles, Captain Ray Allen 1910, took the lead at the beginning and won by fifteen yards.

The 220-yard dash was perhaps the best race of the day. Although only four men ran they were all very even, and until the last fifteen yards no one had the race. At this point Capt. H. S. Burnham of the 1913 relay team took the lead and was an easy victor.

The two mile was not very exciting, the men kept well bunched and ran together all the way. B. C. Huber 1911, won.

The field events were fairly closely contested, although few of the events were filled. J. L. Bray 1912, reported his usual good work and totaled thirteen points. H. S. Gott 1910, was the all round star of the meet, winning two firsts, two seconds, one third and a fourth, totaling thirteen points.

The final score of the meet was 1912 and 1910, 100 points; 1913 and 1911, 39 points.

The summary of the events is as follows:

One hundred yard dash, trial heats. First heat won by C. E. Trull 1913, J. F. Maxfield 1910, second. Time, 11 1-5 seconds. Second heat won by M. A. Oettinger, H. C. Lockett 1910, third. Time, 11 1-5 seconds. Final heat won by C. E. Trull 1913, M. A. Oettinger 1912, second; H. C. Burnham 1913, third; J. P. Maxfield 1910, fourth. Time, 11 seconds.

Two hundred and twenty yard dash. Only one heat. Won by H. C. Burnham 1913; J. P. Maxfield 1910, second; Ray Allen 1910, third; E. Mangan 1912, fourth. Time, 24 4-5 seconds.

Four hundred and forty yard run. Won by J. P. Maxfield 1910, M. A. Oettinger 1912, second; S. G. Strachan 1913, third. Time, 56 seconds.

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### DEPTH INDICATOR FOR BORE HOLES

### Devised By Prof. Lewis and Dr. Kalmus Of Physics Department

After careful experimentation, Prof. G. N. Lewis and Dr. H. T. Kalmus of the physics department have perfected a gauge by which a very accurate determination of the depths of diamond drill bore holes may be obtained. They were called upon to devise some such gauge by the Board of Water Supply of the City of New York, in this course of the construction of a part of the new aqueduct which will increase the water supply of New York City.

This portion of the aqueduct crosses the Hudson river just north of West Point, where it becomes necessary to sound over a thousand feet by means of diamond drill holes through the solid granite formation. These holes can be filled with water and the hydrostatic pressure produced at the bottom may now be measured with a high degree of precision with this new indicator.

Some of the difficulties involved in the construction of this gauge were: First—the small diameter of the holes, which in this case, was seven-eighths of an inch. Second—the high pressure of from 500 to 1000 pounds per square inch, which must be withstood by a very sensitive instrument. Third—to make it self recording. Fourth—to make it independent of varying temperature conditions. All these problems have been conquered.

The pressure gauge proper is a very thin hollow rectangular tube, about one thirty-second of an inch thick, three-fourths inches wide, and eighteen inches long. This tube is made from a thin strip of carefully tempered steel, the edges being welded together in the oxyacetylene flame. This tube is closed at its bottom end and a piece of glass tubing of uniform bore is sealed to the upper end. The gauge is filled with mercury up to a level marked on the glass. It is evident that when the gauge is lowered the pressure on the steel tube forces the mercury up and out of the tube, overflowing into an air tight chamber provided at the top. When the gauge is raised and the pressure decreases the mercury falls in the tube and its height can be read. The instrument has been calibrated by enclosing it in a steel tube filled with oil and connected with an ordinary oil pressure pump.

The indicator promises to be valuable, not only in this aqueduct only, but also in other lines, notably in mining prospect work where a great number of borings are often required.

### G. E. SOCIETY TRIP

### Visit Somerville And Malden Grade Crossings

On last Saturday about thirty members of the Civil Engineering Society accompanied by Prof. Breed, visited two grade crossings which are to be abolished, one in Somerville and one in Malden. Each is of a different type, the street passing over the railroad at Somerville, while at Malden the railroad passes over the street.

In both plans the work is well advanced. The approaches, and the concrete abutments are finished and at Somerville the society watched the iron work being put in place. Several other trips will be taken later although none has been arranged for next Saturday.

### AFFILIATES WITH NATIONAL SOCIETY

### American Society of Mechanical Engineers Accepts M. E. Society

Affiliation with the American Society of Mechanical Engineers has just been granted to the local Mechanical Engineering Society.

At a meeting of the Society on May 5, 1909, Prof. Lanza suggested that steps be taken to bring about such a connection with the National Society. A committee was appointed to make the necessary arrangements, and now reports that the council has granted the petition. The student societies of colleges similarly affiliated, include: Cornell, Purdue, University of Kansas and University of Illinois.

The American Society of Mechanical Engineers is one of the oldest of the four national professional societies, the others being the societies of Mining, Civil and Electrical Engineers. The society was founded in New York in 1880 and has a membership of 3260 in the United States, and 149 in foreign countries. The members are divided into three grades; members, associate members, and junior members. Graduates of Engineering schools are eligible for the junior grade. Meetings are held regularly in New York, the recently organized Boston branch will probably hold frequent meetings, one being scheduled for this week, which members of M. E. Society may be allowed to attend.

The membership in the local society is about 125, but will be much increased by the admission of sophomores next term.

As slight changes must be made in the name and constitution, a meeting will be held in a day or so to authorize these necessary changes. The society will be required to furnish to the parent organization, reports of discussions and business transacted, and in return will receive copies of the proceedings of the larger society. A member of the faculty will be appointed Honorary Chairman, and the present president will be styled chairman.

### ARCHITECTURAL SOCIETY

### Provisional List Of Speakers To Cover Varied Subjects

The following is a provisional list of the speakers for this year at the various meetings of the Architectural Society:

Mr. Cass Gilbert of New York, Mr. Honbostel of the firm of Palmer and Honbostel of New York, Mr. Hastings of the firm of Carrere & Hastings, N. Y.; Mr. Burch Burdette Long the New York water color artist; Mr. Gunvald Aus. Consulting Engineer; Mr. John R. Freeman, the well known hydraulic engineer, who has been connected with the Panama Canal and also with the Charles River Basin Commission; Mr. Sabin, the paint chemist of Flushing, N. Y.; Mr. L. E. Smith of Columbia College, who is a member of the American Academy of Rome; Prof. H. F. Clifford, formerly of Tech, but now of Harvard, who will speak on Wiring and Lighting.

### ELECTRICAL EXHIBIT AT MECHANICS BUILDING

### Technology Graduate Shows Some Very Interesting Experiments

Those who are students of electricity will be interested in the experiments to be conducted during the Electrical Exposition in Mechanics Building, Nov. 15 to 25. Earle C. Ovington, a Technology graduate, now a consulting electrical engineer in New York, has contracted to perform the following feats with apparatus of his own making:

Pass from one to three million volts of electricity through his body without feeling the effects; light five incandescent lamps to their full candlepower through his body; transmit power to light, wirelessly, a lamp under water and inclosed in a glass case, twenty feet away; transmit the current from his body through five inches of solid glass; illustrate the method of automatically steering an airship by wireless; send wireless messages through his body to the U. S. Wireless Station; light a room with an electrostatic field that pours from his body; exhibit a perfect articulating wireless telephone, without any auxiliary apparatus, and talking and singing arias.

While Ovington is carrying on these experiments, he lectures and explains why seemingly impossible feats are capable of being performed. He uses what he calls an oscillating current. He explains that the reason why he can allow many times the voltage to traverse his body that is used to electrocute in Sing Sing, is that the vibration of his current is greater.

### FOOTBALL RESULTS

#### Colleges.

Harvard 12, Dartmouth 3.  
Yale 17, Princeton 0.  
Brown 17, Vermont 0.  
Tufts 16, Bates 12.  
Michigan 12, Pennsylvania 6.  
Cornell 6, Chicago 6.  
Bowdoin 22, Maine 0.  
Williams 17, Amherst 0.  
Carleton 35, Gettysburg 0.  
Trinity 12, Wesleyan 6.  
Virginia 21, Georgetown 0.  
Fordham 30, Rensselaer 0.  
Harvard Freshman 11, Yale Freshmen 0.

Holy Cross 0, Worcester Poly. 0.  
Boston College 17, Conn. State 0.

#### Schools.

Waltham High 22, Boston Latin 0.  
Somerville High 25, English High 0.  
Everett High 28, Medford 6.  
Beverly High 16, Mechanics Art 0.  
Worcester Academy 11, Williams 0.  
Groton 33, Milton Academy 0.

The new building for the National Museum will be occupied shortly. It covers more space than any Government building in Washington except the Capitol. Ten acres of floor space are within its walls. It will have cost when completed about \$5,500,000.

#### CALENDAR.

Monday, November 15.  
4:15 P. M.—Meeting of 1913 Football Team. 22 R.  
Tuesday, November 16.  
4:15 P. M.—Banjo Club. 33 R.  
Wednesday, November 17.  
4:15 P. M.—Cross-Country Practice. Thursday, November 18.  
4:15 P. M.—Banjo Club. 33 R.  
Friday, November 19.  
8:00 P. M.—Union Night.  
Saturday, November 20.  
10:00 A. M.—I. C. C. A. A. A. A.