CRAWFORD GIVES TALK IN UNION

Yesterday noon, Dr. George A. Crawford held the attention of every man in the Union, throughout the hour and a quarter allotted to him in the first T. C. A. talk of the year. Rev. Mr. Crawford, who is a retired chaplain of the U. S. N. and who spoke here at the Institute last year, had, for his topic, "Why God Does Not Know How to Handle Criminals." His talk proved to be an interesting and admirable one to begin the series of T. C. A. talks.

Dr. Crawford was of the opinion that a particular relationship must exist between the parties in question, the party to be forgiven, and the party to forgive. Without this relation, a man could not be forgiven for stealing. It is no use to forgive a man if his principles are not changed. It is after all, not a man's church membership that determines whether he can be a Christian or not. It is his conduct.

It is possible that this year shall surpass all others. In past years entertainment has been furnished by the various members in ways characteristic of their own countries. This method has proved distinctly interesting and instructive and has won the attention of the Faculty.

BAMBOO TESTING

It is very probable that the tests which were to be made last year in regard to the use of bamboo and reinforced concrete will be carried out this year in thesis work by one of the Chinese students. The bamboo was imported last year by H. C. Chow and was intended to be used on thesis work but arrived too late. This year the tests will probably be made on the tensile strength to determine the actual strength of bamboo in engineering work.

ARCHITECTS' MEETING

Next Friday evening, Oct. 17, at 7.30 o'clock the Society will give a reception to the new instructors and colleagues. It will be a very informal affair with plenty of eats and drinks. This reception will furnish an excellent opportunity to see some of the works by the new professors, including those of Associate-Prof. Le Monnier. Associate-Prof. Edgar I. Williams and several of the other instructors.

LARGE NUMBER OF MEN HEAR INSPIRING TALK IN UNION

Last night the Finance Committee held its second meeting in the Union at 7.30, with "Pa" Coburn as the graduate member. Reports were received from all activities except the Classes of 1916 and 1917, the Institute Committee, the Orchestra, the Musical Clubs, the Union Dining Committee, Technique 1914, and the Biological, Mining and Wireless Societies. After the reports had been read and discussed carefully, the committees appointed at the meeting of last week reported informally. None had finished the work intrusted to it, and so final reports are to be made at the next meeting.

Then the question of the M. T. Cadet Corps was discussed. A statement of conditions as they now exist was given by one of the members, and as a result of this it was voted that the M. T. Cadet Corps he invited to send a representative to the Finance Committee regularly. It was also voted that the Boat Club and the Hare and Hounds Club be included to send such a representative to the Committee.

Sophist Scribbling Today

Practice at North Brighton With Mechanics Arts High

At 4:15 this afternoon the 1916 football team will practice with members of the Mechanics Arts High School team. The practice is not a game but merely scrimmages between the two teams. The work-out will take place at the North Brighton Playground. Shower baths and locker-rooms will be available.

To reach the Playground one should take a Cambridge Subway or Harvard Square surface car. At Central Square get a transfer and take a Western Avenue car to the grounds. Coach Carey wants all the candidates out as this will be the last opportunity to test out the plays before the Wellesley High School game on Monday. The lineup used will be the same as that to be used against Wellesley. The later game will be at 3 o'clock Monday, and the train to be taken will be announced in tomorrow's issue of THE TECH.

Glee Club Try-outs

The Glee Club try-outs will take place in the Union this afternoon at 4:15. There is a great opportunity for all fellows who sing, and it is imperative that a large number of candidates be on hand. If you sing, be sure to come to this meeting.

FINANCE COMMITTEE MEETING YESTERDAY

Cadet Corps Invited To Send Representative To Committee.

JUNIOR NOMINATIONS BROUGHT TO CLOSE

The nominations for the Class of 1912 have closed with the following men up for the several offices:

F. F. Scully
H. B. Sabin
E. B. Guinott

R. S. Fletcher
K. R. Roy

R. D. Waterman

Institute Committee.

J. J. Barry

Executive Committee.

T. R. Johnston

C. W. Fry

T. A. Talley

C. W. Wood

H. P. Howell

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Aside from the entertainment and instruction afforded by the weekly T. C. A. talks, they fill one other need in the life of the Tech man who makes the best use of them: they teach him to think. The speakers, for the most part, are not the narrow type of men who confine themselves to imparting information; they aim rather to provide the starting point for lines of independent thought on which the listener can work at his leisure. Each talk, in other words, is a report of some issue. This is a point which we often hear emphasized, yet which we always seem to under estimate. We are too ready to disparage the value of public lectures, and to believe that their efficacy depends upon the writing of sound and the reading of a book. There are a hundred or more varieties beckoning to you from every smoke shop but there is only one that is "Distinctively Individual": the purest and best of tobacco—delicious flavor, mild and satisfying! Your college chum.

The 1916 Relay Team is fast getting in form under the management of Capt. Dean and Coach Kanaly. Fifteen men showed up for practice yesterday morning at 4:30 at the South Meeting House. The following men were present and will report at the first rehearsal next Thursday: J. E. B. Ford, R. K. Pendleton, F. L. Ford, R. T. Friebus, F. F. Glen, R. E. Haylett, J. H. Holton, D. O. Hoag, G. T. King, D. L. Patten, T. E. Stern, S. E. Piza, A. Simmons, R. B. Strongfield, A. R. Stubb, C. J. Ward, Fred E. Stern. Any men who formed part of the trials are expected to report at the first trials and will report at the first meeting of the team, which is being carried on this afternoon, for lines of independent thought on their part.

Three rather queer and yet delicious causes of explosion in grinding mills are the sparks by fragments of iron caught between the rollers which grind inflammable materials such as oil, cotton waste, etc. Several European mills have succeeded in overcoming this source of danger by contracting polycrystalline electro-magnets inside revolving drums of iron, which separate the metallic scrapers from the material to be ground and to carry them upward until removed by a suitable scraper. In the improved types, the inside magnets are wound with aluminum wire, self insulated by the oxide, so that the coils are heat and moisture proof and the device is very serviceable. Such magnetic separators are recommended for cocoa or hine mills, chemical works, coal crushers, sugar refining and grain mills, as well as in the textile industries.

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THE TECH, BOSTON, MASS., OCTOBER 10, 1913.

ENGINEERING AND SCIENTIFIC NOTES

According to Mr. T. H. Page, an English aeronautical engineer, for machines of equal span, cross section, etc., the monoplane has about 15 per cent more lift than the biplane with equal speed. The monoplane has a slightly less re- sistance than the corresponding biplane, but what is gained in this direction is offset by the increased size of the wing, which in a given size of air- ship will have a larger surface. For machines having an area of ground in square feet the monoplane is conceded to be the most economical type, but with larger area the bi- plane leads.

The idea of adding wrestling matches to the Field Day events has been suggested, and while we are not certain of its desirability, it is at least worthy of more attention than it has received. While the main idea of Field Day is to provide a safety-valve for the energy of the two lower classes, any addition which will give the students the benefit of par- ticipation deserves consideration. Of course if the wrestlers would be divided into the other events their benefits would be doubled, but the scheme appears to be worth a trial.

The weather is the despair of the athletic organizations, especially the ten- nis association.

BOSTON BASIN GEOLOGY

Considerable interest attaches to the field work which is being carried on this season by the Geological Survey in the State of Massachusetts. The geology of the Boston Basin, including the areas known as the Boston, East Boston and Framingham quadrangles, is being ex- amined in great detail by Geologist Law- rence La Forge, and this season's work will complete his field studies necessary to the preparation of a geologic atlas, including geologic and topographic maps, describing the interesting and complicated geology of this area. The publication is expected to be of high educational value, as well as of local in- terest and importance. In several other quadrangles, in the central portion of the state, geologic mapping for full publication is in progress by Prof. B. K. Emerson. The Pleistocene geology of a portion of the state, including the Housatonic area, is being investigated by Frank B. Taylor.

In the eastern part of the state, through an arrangement with the Federal Bureau of Mines, studies of the coal beds have been made by Charles A. Davis, and have disclosed most in- teresting evidence of the gradual sinking or subsidence of this area still in progress. While this sinking of the past pegs is of considerable geologic interest, the rate of subsidence is too slow to warrant any alarm on the part of the people living in the vicinity.
ANNUAL FALL INTER-CLASS HANDICAP MEET

Preliminary Meet October 18—New Men Show Up Well—Generous Handicaps

The Annual Fall Handicap Meet will take place Saturday, October 25. This is one of the few interclass contests of the year, and it is a splendid opportunity for any man to score for his class and make his numerical place respectable.

The field will be limited to 250. No member of the class who is in the varsity track team will be eligible to enter. There are four places in each event and every generous handicap is given to new men. Handmade medals are given to those scoring.

In order to make a close and interesting contest proper entries must be given. For this purpose a preliminary meet will be held a week before on the 18th. Although now men are showing up exceptionally, it is especially desirable that the men who were on the regular teams last year should show up more regularly from now on as the first meet is only a little more than a week distant.

FRESHMEN vs. JUNIORS.

1917, 12; 1915, 10; In Short Seizmic Yesterday.

The Freshman and Juniors entered in a short acciencing at Opperful, Tuesday afternoon at the Tech Field. 1915 scored two touchdowns and 1912 two safeties and one touchdown. The following Juniors took part: Boynton, Scllly, McDow, Priorist, Howlett, Morse, and White. Thompson stands for the Freshmen at left half, making three long runs and one touchdown by a line plunge from the 15-yard line.

Scllly and Mcdow made long runs for 1915 and a forward pass from Morse to Scllly resulted in another large gain. Morse made the only touchdowns for 1915. The freshman team made several good breaks, but considering the early date, the outlook is very promising and a good showing may be expected in the Somerville game which comes next Monday. The men are a great deal of enthusiasm and can be relied on to put up a good fight Columbia Day.

Besides this game, Manager Atkins has games in view with Lowell Tech, Newton High and Waltham High.

TECH REPRESENTED

Professor Sedgwick Talks at New Bedford.

Tech was well represented at the meeting of the Massachusetts Association of Boards of Health yesterday at New Bedford. Professor V. T. Sedgwick was there and Robert S. Weston, who is taking the place made vacant by the call to Washington of Dr. Phelps, together with two of the graduate students in Statistics and the whole of the new Cooperative Health School that Harvard is carrying on together, with Tech. In the forced absence of Dr. Phelps and Dr. Rosenau, who were scheduled to speak, Dr. Sedgwick gave an abstract of both their papers. About one hundred health officers of Massachusetts towns and cities went into the company and visited the garbage disposal plant, the intervening sewer under construction and the pumping station and filter and dosing plants.

Results of the Fall Tournament are showing in very slowly. Only one match decided, and that in football.
ATTRACTIONS AT THE THEATRES

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ROSTER OF STUDENT REGIMENT COMPLETED

Sophomores Are Wanted for Battalion Adjutants and Lieutenants.

The roster of the student regiment has been determined upon, although there are still positions open for two battalion adjutants and lieutenants. These vacancies should be of special interest to Sophomores. That the positions are valuable and that the men enjoy the work is shown by the fact that every 1915 man who was in the regiment last year has returned to drill. The roster is as follows:

Field and Staff Officers
Cadet Captain—C. R. Gardner '15, Regimental Adjutant.

First Battalion
Cadet Major—Perry Keller '15.
Company A
Captain M. F. Brandt '15, Lieutenant Leonard Stone '15, Lieutenant L. W. Barrett '16.
Company B
Captain C. W. Harvey '15, Lieutenant R. E. DeMerritt '16, Lieutenant R. Miller '16.
Company C
Company D
Captain G. A. W. Davis '15, Lieutenant H. L. Richford '16, Lieutenant F. E. Stern '16.
Second Battalion
Cadet Major—Harold P. Bent '14, Senior Major.
Company E
Captain Harold A. Stone '14, Lieutenant E. B. Stockman '16, Lieutenant A. C. Lieber '16.
Company F
Captain A. N. Althouse '15, Lieutenant A. H. Smart '15, Lieutenant L. S. Wright '16.
Company G
Company H
Captain B. S. Curtis '15, Lieutenant G. W. Wyman '16.
Captains L. E. Best '15, J. A. Steere '15, B. Landers '15, unassigned.

INSTITUTE COMMITTEE

The Institute Committee will hold an important business meeting this afternoon at 4:15 in 8 Eng. C. Reports are expected from all the standing committees. The need of a calendar committee and suggestions for Tech Night will be laid before the meeting. Also an undergraduate member of the advisory board to THE TECH is to be elected. On account of the importance of the business all members of the Committee are requested to be present.

CHESS CLUB MEETS

A meeting of the Chess Club will be held in the Union this afternoon at 5 o'clock. The election of officers will be held at that time and a discussion of the plans for the year. Last year a number of interesting matches were held in which the Tech team came out very successfully, and this year as good a schedule will try to be arranged. Those interested in chess, and any who desire to join the Club should attend this meeting.

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