CROSS-COUNTRY RUN
WITH HOLY CROSS
To Be Held Friday Over Regular
Tech Course—Finish At Field.

There will be a dual cross-country run with Holy Cross next Friday. The race will be held over the regular Tech course starting from West Roxbury and ending at the Field. Arrangements will be made to have the finish come about the middle of the Field Day contests, so that those there to witness the struggle between the upper classes will also see a very close and exciting finish to the run.

Each team will be composed of ten men of the same class. The winning team will receive a cup and the first six men to finish will receive badges. The arrangements also have been made to hold the run at Worcester next year under the same conditions.

Holy Cross has several fast men and a well-trained team, but there seems no reason at present why Technology should not win by a handy margin.

Besides being a race with a neighboring college in it, there will be in basic the choice of the team that is to run in the Tuscro-Roles on the fifteenth and twenty-second. Seven men are to be chosen for these races.

There is little doubt that the individual winner of the race being Benson '16. He is running well and is grading himself in such a form that placed him eighth last year in the New England when running against the best men of this section.

Today the team is scheduled for a walk from the Gym about 4.30.

SOCOR FOOTBALL
Men Interested are to be in Union
Tomorrow Noon.

Agitation has been begun among Tech men interested in athletics in favor of the old English game of Soccer Football. This movement, a preparation for the spread of athletics in the NEW TECHNOLOGY, is under the supervision of G. M. White, last year's track manager, that will enroll all men interested to meet him in the Union, Wednesday, October 31, at 1.00 P.M., in Room B.

MANAGING BOARD
There will be a very important meeting of the Board of THE TECH today at 3.30 P.M., in the upper office.

SOPHOMORE RELAY
The manager of the 1916 Relay Team requests that all the members of the class turn in to him the measurements for their suits. Arrangements have been made to have a man at a suit on Monday afternoon to take these figures, but a slip occurred and no man appeared. Each man must turn in his chest and waist measurements and the length of pant leg desired to "Jimmie" Uhlanger.

Grandstand seats for Field Day are going fast.

NEGO CAPTAIN TO
SPEAK THURSDAY NOON
T. C. A. Speaker, Graduate of Negro
Industrial School—is Native
Of Africa.

Captain Celie, who is to speak in the Union next Thursday noon, will undoubtedly be one of the most interesting and novel speakers that the Tech men have ever engaged to speak at its weekly meetings. As a personage, he is said to be a very unusual character, and the men at the Institute are very fortunate in having the opportunity to hear his speech.

Captain Celie is a genuine African negro, and has just finished his training under the special Negro Education in the United States. He graduated recently from the Hampton Institute, in Virginia, a training school for the industrial training of negroes, and is planning to return to his native country in Zululand, as he calls it, in the near future. Before taking his departure, the Captain is spending a few weeks at the University of Wisconsin, where he is studying the native language and culture of the negroes, and is an athlete in every sense of the word. He is said to possess a most interesting and pleasing personality. His tall are reported to be full of funny stories.

Mr. Celie's plans on his return to Africa, as he has ever engaged to speak at an industrial school for the education and training of the native negroes, and is planning to return to his native country in Zululand, as he calls it, to work among the girls how to cook and sew.

1916 GOV. BOARD MEETING
New Election Committee Appointed—
$210 for Field Day.

At a meeting of the Sophomore Governor's Board, held yesterday afternoon, R. E. McDermott and J. R. Daggett were appointed to lead the team of the Sophomore Class on the Field Day.

The other business transacted at the meeting was as follows: In place of the old Sophomore Election Committee, which was dissolved two weeks ago, the following men have been appointed; J. B. Care, chairman; H. E. Schubacker, C. E. Reed, and H. B. Hastic.

The expenses incurred by the Sophomore Field Day Teams are to be met by an appropriation of $210 from the class funds, one third of which to go to each team.

It was also resolved at the meeting that each and every member of the Field Day Teams must have paid his dues, both past and present, in order to retain his position on the team.

The results of THE TECH's request for criticism are proof positive of the interest of the paper among the students.

November 29 is the limit of the time allowed for making up "D"s.

DR. MACLAURIN IN HUNTINGTON HALL
Will Present Plans to Undergraduates—First Official Announcement Saturday Evening.

Under the auspices of the Walker Club, a meeting will be held in Huntington Hall this coming Saturday evening at 8.30 P.M., at which the plans of the New Technology will be presented to the members of the Institute and their friends, in a more detailed and less formal way than they can be given in the special souvenir issue of THE TECH, which comes out Saturday morning.

The speakers are President MacLaurin, Dr. Rockwell, and Mr. Litchfield. The President will explain the general educational arrangements. Mr. Rockwell the athletic, and Mr. Litchfield will devote himself to the buildings which have to do with student life. This is the first official announcement of the plans; it is a significant fact that it is made direct to the student body.

The meeting will take place immediately following the Field Day Dinner in the Union. The men will be seated by classes with their cheerleaders in evidence.

SOUVENIR ISSUE
Eight or Ten Page Paper on New
Institute
Preparations are well under way for the special New Technology issue of THE TECH, which will be out Saturday. Special effort is being put forth to render this paper one which every Tech man will wish to preserve as a momento of the greatest event in Technology's history.

FIELD DAY LUNCHEON
Steward Colton to Arrange a Special
Menu.

For the benefit of the men who wish to bring the ladies to see the Union and have dinner before going out to the field on "Field Day," Steward Colton has arranged a special "Field Day Luncheon." This dinner will be served in the Union Dining Room from 12.00 to 2.00 P.M. and may be had at the nominal sum of 25 cents.

MANDOLIN CLUB
The Mandolin Club held a rehearsal yesterday afternoon in the Union. A new melody was given out which is to be learned by the next rehearsal. This will be on Thursday, and the Couch will be present.

PROGRESSIVE CLUB
Several Progressive Club members are working at the polls today, checking voters as the ballots are cast. They are volunteers in answer to the call sent out by the Club through THE TECH. Their work is in Wards 10 and 11.

FIELD DAY REGULATIONS
AND POINTS ANNOUNCED

Time Of Various Events Is Given—Date Of Field Day

Dinner Set.

Field Day Regulations.

No one will be admitted without a ticket or a badge; officials and marshals will be provided with badges, and all tickets will be admitted through the managers of their respective teams.

The following rules must be observed by spectators, officials, marshals and others:

During the football game only the players and officials directly connected with the game will be allowed on the playing field; substitutes and coaches will not be allowed to approach the field line fifteen yards, and then only on the north side of the field (opposite the spectators' stand).

During the Relay Race, only the referee and the officials connected with this particular race will be allowed on the field.

During the Field-War trials, only the teams and officials in connection therewith will be allowed on the field. At no time will anyone be allowed on the field between the field and the spectators in the stands, except marshals who may be detailed, particularly to enforce this rule, and football officials or officials will be designated as follows:

Football ............Yellow Badge
Relay and Tug-of-War .......White
Marshals and Managers . . . . . . . . . . . .Scarlet Press .......Red

The FIELD DAY DINNERS to which all participants on Field Day, including officials, managers, and competitors will be admitted (Continued on page 4)

TECH SHOW CANDIDATES
Freshmen Out For Asst. Business Manager Meet Tomorrow at 8.30

This afternoon all Freshmen candidates for the position of Assistant Business Manager of the Tech Show are to meet Business Manager C. R. Lornin in the Show office at 8.30 P.M. The Sophomore candidates will meet in the Show office Wednesday afternoon at 3.30 P.M.

WEATHER
Probably rain—moderate south to west winds.

CALENDAR
Tuesday, November 4, 1913.

2.00—Nominations for Executive Committee Catholic Club—Gage, 4.00—1917 Relay—Gym.
4.00—1917 Field—Gym.
6.00—1917 Football—Field.
6.00—1916 Field—Gym.
8.00—1916 Tide-of-War—Gym.
10.00—1916 River—Field.
12.00—Field-War—Secret Practice—National League Grounds.

Wednesday, November 5, 1913.

1.00—Soccer Football Meeting—Union.
3.00—Cosmopolitan Club—8 C.
THE TECH

The get-together meeting to be held Saturday in Huntington Hall under the auspices of the Walker Club promises to be the greatest All-Technology affair since Founders' Day last year. The club organized this meeting for the purpose of furnishing a more personal and intimate supplement to the plain facts as announced in more formal and exact language at the special souvenir issue of THE TECH. In preparation of this idea the club has arranged to have each phase of the New Institute discussed by the man best qualified for that particular purpose.

Dr. Maclaurin will open the meeting and explain the educational side of the subject; Dr. Rockwell will take up the athletic arrangements, and Mr. Loomis will elaborate the student life at the new location, particularly the buildings devoted to it, and will give a short historical sketch of the Institute with regard to the buildings it has occupied at various times. Each talk will be accompanied with stereopticon slides, a large number of which are being specially prepared for the occasion.

The gathering will occasionally be enlivened with Tech songs, the score being thrown on the screen for the benefit of new men. As the seating is to be by classes, some competitive class cheering may be expected.

We have received simultaneously with the criticism printed in this issue charging us with excess of zeal in fault-finding another of practically opposite import. It is on the recent critical editorials on the ground that THE TECH has been prone to take the attitude of passing over such shortcomings rather than appear to be a "knocker" and "run down" the Institution. We should be glad of more opinions on this subject as we wish to improve a middle course, praiseworthy and unblaming impartially.

In a paper which he read before the Societe Internationale des Electriciens, M. De Reibachian described some interesting and valuable results which he has attained in the sterilization of water by ultra-violet light. In his first experiments quartz mercury vapor lamps of the type manufactured by the Westinghouse-Geiger Hewitt Co., which were installed in a separate chamber provided with windows of rock crystals in order that the high temperature necessary for the production of the ultra-violet rays could be maintained. The water underwent a preliminary filtration which clarified it and then it was run past the lamp. Current consumption was sufficient to practically sterlize the water. Bacteriological examination showed that the number of germs had been reduced to ten per cubic centimeter (after fifty days culture), and in many cases even to zero.

These results were very satisfactory, but with these lamps only about sixty per cent. of the ultra-violet light actually reached the water. Accordingly a new form of lamp was devised. A U-tube with the branches about six inches in length was employed and the whole luminous portion of the tube could thus be inserted in the tank. Such a lamp, when taking 3 amperes and 500 volts developed some 5000 C. P., when measured perpendicular to the length of the tube. An electro-magnetic relay, operated by the lamp current, is arranged to cut off the flow of water should the lamp be accidentally extinguished. Such a lamp was tested with from 175,000 to 250,000 gallons a day of ordinary river water, which had been roughly filtered, but which still retained a marked yellowish tinge. The resulting water contained from 0 to 9 germs at most per cubic centimeter, while originally there were between 36 and 655 germs per cubic centimeter.

An important question in connection with such plants is the length of life which may be expected of the lamps. Although the new 7-tubes have only recently been introduced, experience has shown that an appreciable falling off of the ultra-violet rays occurred at least up to 1300 hours of work, and there seems to be no reason why their life should not extend to 2000 hours or more, as with ordinary quartz lamps. To improve a lamp at the Sorbonne some lamps tested after 2000 hours have shown only a 10 to 12 per cent. reduction in ultra-violet rays. This method of water sterilization is being extensively developed and it will doubtless prove a valuable process for the biologist and the sanitary engineer.

Tickets for the "Honeymoon Express" can still be obtained at the box office at the theatre. Fares two cents a mile, for trip of one hundred miles.

THE TECH, BOSTON, MASS., NOVEMBER 4, 1913.

ENGINEERING AND SCIENTIFIC NOTES

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BOSTON

GET YOUR BOOKS AT
179 South St., Boston

Managers Must Make Arrangements
Today—Only Boxes Available.

Today is positively the last day the managers of the Field Day teams may obtain their tickets for "The Kennelman's Prize." All paid receipts must be tendered by tomorrow morning, and the Manager Committee will not be in the Offices Corridor after tomorrow noon. The management of the show wishes them to have as good a time as possible, but requests the men not to throw anything on the stands for it makes the dancing impossible, and further requests that they not stand up in their seats as this blots all views. If these rules are violated it will probably mean that the show will have to be stopped.

COMMUNICATION

To the Editor of THE TECH;

Dear Sir: Getting your printed report is a criticism, I would like to call your attention that the impression on reading THE TECH, particularly in reading the editorial columns, is that the Institute is going to rack and ruin, particularly as regards the spirit of the undergraduates. I firmly believe that a great deal more can be done by preventing a spirit of absolute pessimism, both editorially and in the news columns.

By continually criticizing the students' activities you are criticizing the students; exactly as happens with a man who always wants everything done "immediately." People who know him well will not discount his word "immediately," but that same long when he really does want something done in a special hurry his word "immediately" counts for nothing.

This does not necessarily mean a spirit of bluff or of stating things in the wrong light. My impression is that more can be gained by carrying men with you on a wave of general enthusiasm than ever can be by continually criticizing them. You have probably observed for yourself that no man is more of a heret than the pessimist who is always knocking and looking on the dark side of things.

In offering this matter for what it is worth I remain with best wishes for the prosperity of THE TECH.

Very sincerely yours,

D. E. Stevens.

After studying the methods of eighteen leading universities abroad, Professor William McPherson, head of the Department of Chemistry at Ohio State University, declares that the American universities excel in instruction, but that the teaching schools are more prominent in research work.

1917 Football

The 1917 football squad was put through some stiff plays yesterday and showed up well. Practice was continued until after dark, and through the ingenuity of one of the players who gave the ball two coats of white lead and a coat of enamel. Practice consisted of the ends following the ball, kicking the line, scrimmage, and small work.

Today's work will be mainly signal practice and work for the重要 calls following the ball. headphones, the line, scrimmage, and small work.

The following men help coach the team: Premier, Scully and Hertler, for the ends. Quirk for the linemen. Roscoe and Boyton for the centre, and McVittie for the backs. All three have had more or less experience in football, and they could certainly help the 1917 team in by coming out and investing in practice a few times. Probably no man has been picked for any position and the choice of the team will depend largely upon the candidate's qualifications at practice the three days.

Manager Atkins will give out the tickets for Field Day.

1916 Tug-of-War

The remaining candidates for the Sophomore Tug-of-War Team had their strength tests taken yesterday. All those who feel they have had their tests taken are to report to Manager Atkins at the gym today.

There is still time for new men to make the team as the men were picked until Wednesday night. The names of those candidates who will make the team will be published Monday morning.

Manager Atkins wishes to have the following men help coach the team: Premier, Scully and Hertler; for the ends. Quirk for the linemen; Roscoe and Boyton for the centre, and McVittie for the backs. All three have had more or less experience in football, and they could certainly help the 1917 team in by coming out and investing in practice a few times. Probably no man has been picked for any position and the choice of the team will depend largely upon the candidate's qualifications at practice the three days.

1917 Tug-of-War

The 1916 Tug-of-War team continued their practice as the gym yesterday afternoon. The squad of about 40 men were divided into two teams and were pitted against each other for several long pulls, some good practice resulting. Later two good teams were matched against each other, with a provisional team for the Tug-of-War for Field Day. This is the first time, however, and several changes will probably have to be made. The team have been pulling together much better in the last two or three days and the coach predicts a victory over the Sophomore in Field Day. It is probable that the team will be announced tomorrow morning, but the coach wants all the men that have been pulling to report all the succeeding days until Field Day, and will elect them to victory.
## Attractions

### THEATRES

- **TREMONT THEATRE**
  - ZIEGFELD FOLLIES
  - Evgs. at 8. Mats. Wed. & Sat. at 2.10
  - THEATRES lights at 8. Mats. Wed. & Sat. at 2.

### PLYMOUTH THEATRE

- **PLATINUM THEATRE**
  - JULIA SANDERSON
  - The Strange Woman
  - Prices 1.50, 1.00, 75c, 50c,

### BOSTON THEATRE

- **BOSTON THEATRE**

### PARK THEATRE

- **PARK THEATRE**
  - The Strange Woman
  - Prices 1.50, 1.00, 75c, 50c,

### THE WHIP

- **THE WHIP**
  - Prices 25c to $1.50

### COLONIAL THEATRE

- **COLONIAL THEATRE**
  - The Madcap Duchess
  - with Ann Swinburne

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  - Boston, Mass.

## Field Day Regulations

(Continued from page 1.)

Mr. J. O'Connell Galvin of Boston American To Give Address.

Next Wednesday, Nov. 5, at 6:00 P. M., the Catholic Club will hold a dinner and meeting here in the Union. Mr. J. O'Connell Galvin, who is the correspondent on Irish affairs for the Boston American, will be the speaker the evening, and is well posted on the Irish question, and it is well known for his roasting talks.

The business meeting is a very important one, as the preparations for the annual dance will be started at this meeting. The election of the 1913 and 1917 representatives on the Executive Committee will also take place at this meeting. The ballots for this election will be distributed at the meeting. All nominations for these offices must be handed in at the Cage by Tuesday noon.

### COURSE II TRIP

**Men Inspect Large Engines of Scandinavian Vessel**

Yesterday afternoon fifteen more members of the Mechanical Engineering Society visited the Scandinavian ship "California," docked at the Mystic Wharf in Charleston. The "California" is an 11,000-ton vessel and is equipped with two large Diesel internal combustion engines of the twin type. These engines develop about 2,000 horsepower and require a pressure of 20 atmospheres in the low pressure cylinders and 60 atmospheres in the high pressure cylinders.

When in port steam is used for heating, and oil is used to limit the boilers. Two smaller internal combustion engines are used for running the dynamo, pumps and auxiliary.

Professor Riley went with the party and helped explain the principles of the power plant. The officers of the ship were very kind to the men and made the visit to the ship a very pleasant one. The men were taken into the room containing the electric steering gear and all its workings were carefully explained.

Although no plans have been arranged it is the intention of the officers to arrange several trips in the future to large plants in and around Boston. The officers of the Club are trying to enroll all Juniors in Course II in the Society and wish that all third year men not members would see some of the officers and get enrolled in the Society.

### CATHOLIC CLUB DINNER WEDNESDAY

**Mr. J. O'Connell Galvin of Boston American To Give Address.**

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- J. Arnold Rockwell

### Students

- "Students Patrons"

### Our Advertisers

- **PLATINUM THEATRE**
  - "Let's Go A-Gardening"

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Alleys reserved and screened for private parties. Come in and enjoy a little fun and exercise between periods.