

THE TECH

VOL. XXXV. NO. 36.

BOSTON, MASS., WEDNESDAY, NOVEMBER 3, 1915

PRICE THREE CENTS.

TECH BOILER PLANT NEARING COMPLETION

Will Be In Commission In A Month—Many Other New Developments.

The steady growth of the tall, cream-colored chimney at the northerly end of the new site of the Massachusetts Institute of Technology marks the site of the new boiler house. A month hence will see the boiler house plant in commission. Steam will then be available for drying the plastering that is now being applied to the walls of the offices, study rooms and laboratories.

The new plant will, at the beginning, develop about 2000 horsepower and is modelled along the lines of a modern power plant. It is, however, unusually condensed, being ten feet narrower than stations of similar capacity. This narrowness is neces-

(Continued on Page Three)

E. E. SOCIETY

Short Lecture on "Gas Central Stations."

At the meeting of the Electrical Engineering Society which is to be held tomorrow evening in the Union, Mr. Hans von Vittinghoff of the Stone & Webster Corporation will deliver a lecture on "Gas Central Stations." On account of the reception to college graduates the meeting will start at 7.30 o'clock.

In addition to the men in the electrical engineering and electrochemical courses, those taking chemistry and chemical engineering are invited to attend.

T. C. A. TALK

Mr. Elbridge Anderson, a prominent State Street Lawyer, will speak on, "Pensions for Industrial Workers," in the Union at 1.30 o'clock on Thursday noon.

SOPHOMORE MEETING

There will be a meeting of the 1918 class tomorrow at 1.30 o'clock in Huntington Hall. Candidates for Cheer Leader will be on hand to show their ability. The 1918 official hats, which are to be worn on Field Day will be on sale.

DU PONT CUP TRIALS

Trials for the Du Pont Cups will take place today. Coach Kanaly wishes to announce that after today no further trials will be held until next spring.

FIELD DAY TEAMS PICKED TENTATIVELY

Men Taking Part In Annual Lower Class Contest Selected.

The personnel of the teams which will participate in the Field Day events Friday has been practically decided upon. Following are the lists of the men comprising the teams as given out by the respective managers:



THE FIELD DAY CUP.

1918 Football.

- J. W. Clarkson
- G. H. Porter
- B. F. Jones
- J. T. Kiley
- A. M. Parsons
- I. G. Hall

(Continued on Page Four)

BARKER WINS SABRE

Last Friday in the Armory a sabre was presented to Major Barker for having won last year's prize drill. The sabre was given by Jacob Reeds Sons, the makers of the uniforms; this presentation is to be made an annual event. Major J. A. Tobey, now the assistant in Military Science, was also given a sabre for having won the prize drill two years ago.

FIELD DAY BANQUET

The annual Field Day dinner will be held next Saturday evening in the Union. All contestants and officials who participate in the Field Day program are invited. Contrary to the usual custom at these dinners, no charge will be made.

ENTHUSIASM REIGNS AT MASS MEETING

Songs Perfected For Tech Night—Technique Band Makes Appearance.

Last evening, in the Union, at what was probably the liveliest mass meeting the Institute has ever had, plans were announced for Field Day and Tech Night, and thorough practice was held in all the Technology (Continued on Page Five)

CO-OPERATIVE SOCIETY MERGER WITH HARVARD

To Join Technology And Harvard Societies—Dividends For M. I. T. Students.

The Technology Co-Operative Society will merge with the Harvard Co-Operative Society next September when the Institute moves to its new buildings in Cambridge. The Harvard store does a large business in Cambridge, and will establish a branch store in the vicinity of the Technology buildings.

Technology students may become members of the Harvard Society, receiving a dividend on their purchases according to whatever rate the Technology branch of the business has earned. The Harvard Co-Operative Society itself has just declared a dividend of seven per cent and thus all students who made purchases (Continued on Page Six)

TECH NIGHT TICKETS

The exchange tickets issued by the Tech Night Committee will be worthless unless exchanged by two o'clock today in Rogers Corridor at the window outside the door of the General Library.

Two regular theatre tickets for seats "orchestra left, L, 5, 6," were given out by mistake Monday and will not be honored at theatre. The holder of these seats may return them to the Committee this noon with no questions asked, and can thus avoid an unpleasant awakening at the door of the Colonial.

A number of seats have been left by purchasers to be sold at the window. Of this number there are a few seats in rows H, J and I of the orchestra. The Committee is acting only as an agent in the sale of these seats, having closed its regular seat sale last Saturday.

CALENDAR

Wednesday, November 3, 1915.

- 1.00—Exchange of tickets for WATCH YOUR STEP. Window outside General Library in Rogers.
- 1.05—News Meeting. Upper Office.
- 2.00—EXCHANGE TICKETS FOR WATCH YOUR STEP WORTHLESS AFTER THIS TIME.
- 5.00—Technology Orchestra. Union.
- 5.00—Freshman Publicity Competition for Tech Show starts. Show Office.

Thursday, November 4, 1915.

- 1.30—Sophomore Class Meeting. Huntington Hall.
- 1.30—T. C. A. Talk. Union.
- 7.30—E. E. Society Meeting. Union.

PAY YOUR BLANKET TAX BEFORE FIELD DAY---ROGERS, 1 TO 2

THE TECH

Entered as second-class matter, Sept. 16, 1911, at the postoffice at Boston, Mass., under the act of Congress of March 3, 1879.
Published tri-weekly during the college year by students of the Massachusetts Institute of Technology.

Office 42 Trinity Place.
Phone—Back Bay 5527 or 2180.
Night Phone—Back Bay 5527.

MANAGING BOARD.

H. P. Claussen, '16....General Manager
E. F. Hewins, '16..... Editor-in-Chief
H. E. Lobdell, '17.....Managing Editor
B. F. Dodge, '17...Advertising Manager
F. W. Dodson, '17....Circulation Manager
R. J. Cook, '17.....Treasurer

NEWS BOARD

D. E. Bell, '17.....Sporting Editor
F. A. Stearns '17.....Institute Editor
A. R. Brooks, '17.....Societies Editor

IN CHARGE OF ISSUES

E. W. Rounds, '17..... A. H. Wenzel, '17
W. F. Johnson, '17

ASSOCIATE EDITORS

A. P. Sullivan, '17..... R. E. MacDonald, '17
J. W. Damon, '18..... B. A. Thresher, '18

NEWS STAFF

M. A. L. Eales, '18..... A. N. Pray, '18

OFFICE HOURS.

(Daily except Saturday)

General Manager5.00 to 6.00 P. M.
Editor-in-Chief5.00 to 6.00 P. M.
Managing Editor1.00 to 1.30 P. M.
Advertising Manager5.00 to 6.30 P. M.
Treasurer5.00 to 6.00 P. M.

Subscriptions, \$1.50 per year in advance. Single copies, 3 cents.

Subscriptions within the Boston Postal District, and outside of the United States must be accompanied by postage at the rate of one cent a copy.

WEDNESDAY, NOVEMBER 3, 1915

The spirit with which the undergraduates entered into the rehearsal of Tech songs last night bodes well for the success of Tech Night. Apparently all that now remains to make of Tech Night a permanent and respected institution is the strict compliance with the requests of the Colonial theatre. It must be remembered that the theatre was obtained only after the committee had assured the management that there would be absolutely no confetti nor streamers thrown, and to disregard this stipulation would not only place the committee in a most uncomfortable position but it would probably mean the permanent abandonment of the present form of Tech Night.

KOMMER'S DINNER

All Departments Explained At Annual Affair.

The Kommer's Dinner, the annual Tech Show banquet, will be held in the Union Thursday evening, November 11. The management holds this dinner to promote the interest of the students in the Show and the opportunity is taken to explain the working of all the departments. An interesting entertainment has been arranged to make the affair a pleasing one.

Tickets may be purchased from any member of the management for fifty cents.

WATCH YOUR STEP
FRIDAY NIGHT
COLONIAL THEATRE

COMMUNICATION

Editor, The Tech:

I wish to thank all the candidates who did not make the 1918 tug of war team, for their time and efforts. Their presence at practice was of the greatest value, for without them a good team could not possibly have been developed.

JAMES C. RICKETTS, '18.

BLANKET TAX SHOWS PROMISING RETURNS

To Obtain Full Benefits Tax Must Be Paid Before Field Day.

Payments on blanket tax have experienced a big boom in the last few days and it is expected that by Field Day a satisfactory return will be secured. To date over 500 men have paid and many more have promised to do so before Field Day. The tax may be paid in Rogers from 1.00 to 2.00 o'clock today or tomorrow, or to any of the following collectors:

Class of 1916—J. W. Barker, W. C. Brown, J. B. Carr, J. R. Freeman, E. F. Hewins, T. C. Jewett, C. W. Lawrence, C. W. Loomis, E. W. V. C. Lucas, P. Y. Loo, H. E. Schabacker, B. N. Stimets, A. E. Storm, K. M. Sully, J. P. Uhlinger, G. Roper, R. Alfaro, W. M. Shakespear, R. H. White, J. M. Evans, H. B. Shepard, K. Dean and A. C. Lieber.

Class of 1917—W. J. Beadle, D. E. Bell, B. F. Dodge, F. V. DuPont, F. W. Dodson, J. W. Doon, W. A. Gray, H. E. Lobdell, W. Harrington, G. Stebbins, R. T. Whitney, P. G. Woodard, P. Leonard, I. W. Young, O. C. Norris.

Class of 1918—W. T. Bigger, D. G. Bradley, P. W. Brownie, P. W. Carr, J. W. Clarkson, L. H. Flett, G. E. Johnson, O. C. Lorenz, B. A. G. Merrick, J. R. Milliken, J. L. Ricketts, H. C. Stephens, R. W. Van Kirk.

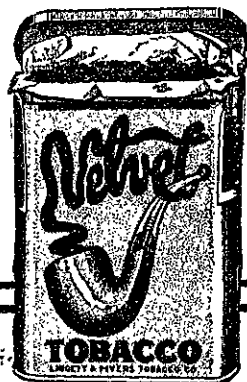
YALE GAME TICKETS

Applications Are Due Before Thursday Evening.

Students in courses I, II, III, VI and XI who wish to apply for tickets for the Harvard-Yale game, must file their applications before six o'clock Thursday evening, at the Harvard Athletic Association office in Cambridge. Students will receive from Registrar Humphreys a card signifying their course, which must be presented when the signature card is filed. After the signature card is filed the application will be received.

Not more than two tickets may be applied for, and the one seat applications receive the first attention, the seats being in the Harvard cheering section. A check or cash, \$2 for each seat, must be enclosed in the application.

Every student receiving a ticket is held personally liable for the seats, and must promise to occupy one of them himself. Any man whose tickets are found in the hands of speculators will be "black listed" and will be excluded from the right of applying for seats again. Yale graduates in the Institute should apply for seats through their own management.



If ev'ry man's name described him as well as VELVET'S name describes it, a lot of folks I know would be applyin' to the legislature.

Velvet Joe

"WHEN IN NEED OF TRUST COMPANY SERVICE CONSULT THE OLD COLONY"

A SINGLE BANK WITH THREE OFFICES IN DIFFERENT SECTIONS OF BOSTON

Old Colony Trust Company

17 COURT STREET
52 TEMPLE PLACE 222 BOYLSTON STREET

McMORROW

College Shoes for College Men

238 WASHINGTON STREET, BOSTON, MASS.

OPPOSITE THOMPSON'S SPA

6 PHOTOS \$1.50

of yourself, finished in Chiarascuro, size 6x10. Regular price \$6 per dozen. Also made from new or old photos

with this Coupon

"The Photographer in Town"
New York, Paris, Boston, Phila.
F. Brunel

159 A TREMONT STREET

CUT THIS COUPON NOW

Good up til May 15 only (T)



Students' Clothes

J. C. LITTLEFIELD

High Class Tailor

12 BEACON STREET

Evening Clothes a Specialty

TECH BOILER PLANT
(Continued from Page One)

sitated because the building lies in the ninety-foot strip between Vassar street and the railway. The latter affords economical delivery of coal in large quantities so that with mechanical stokers and other appliances the coal is not handled by men at any stage of its use.

The boilers lie transversely to the street and railway, being so placed in order to make the addition of other boilers easier as the future needs of the Institute may demand. There will be 1560 horsepower in new boilers and 400 horsepower in those removed from Trinity place. The new boilers are of the Babcock & Wilcox make, working under forced draught and utilizing Riley stokers.

One especial feature is that the boilers will be equipped for heavy overloading. This should not be taken in the sense that they will be unsafe. When not in demand the boilers will be automatically slowed down.

There are several features about this plant that make it different from the ordinary boiler room. It will, in itself, be a laboratory for the use of students. It will care for lighting, heating and power, and will be built upon the lines of a big central station. The laboratory use is likely to demand a high peak load, which the establishment must be able to care for, but, at the same time, the load factor is comparatively low. The location of the plant, besides affording the convenience and economy of direct coal delivery, is sufficiently remote from the educational and student portions of the new Technology not to be a nuisance in point of dust, while the chimney will group itself with the nearby chimneys of commercial Cambridge. The boilers are of the wrought steel, water tube, type, designed for 175 pounds working pressure and superheating the steam 100°F.,—an important economy in the use of the steam turbine. The stack measures ten feet in bore and eighteen feet in outside diameter, and when the capping is placed the stack will stand 180 feet above its base.

To convey steam to the buildings and to the laboratories where it will be needed, a subway of reinforced concrete is being built. This subway is about seven feet square in inside measurements and 625 feet long. It is to connect with the educational group through the administration building and from this place the steam will be distributed to the points where it is needed. For the present the supply will be a twenty-inch pipe for heating purposes, a ten-inch pipe for furnishing the laboratories, and a five-inch return for the condensed water. For furnishing condensing water for the turbines a concrete main has been laid. This conduit is thirty inches in diameter and runs back from the Charles river basin along the western edge of the great court. It will be about a quarter of a mile in length and in rainy weather will collect the rainfall of the area and turn it in for condenser water.

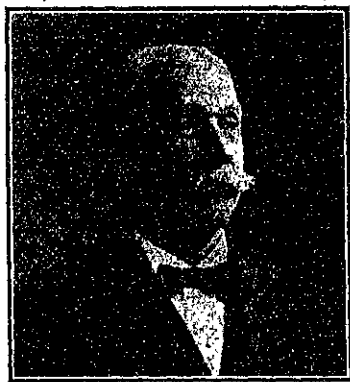
(Continued on Page Five)

MINING SOCIETY

Professor Richards To Speak At Opening Meeting.

The Mining Engineering Society has been exceptionally fortunate in securing Professor R. H. Richards as the speaker for the opening meeting of the year which is to be held next Monday evening at 7.30 o'clock in the Union.

Professor Richards retired from active work in June, 1914, after fifty years connection with the Institute. He was a member of the first graduating class, and following this, was an assistant from 1868 to 1871. In the latter year he was made Professor of Mineralogy and placed in charge of the Department of Mining Engineering at its inception.



PROF. R. H. RICHARDS.

Besides this work in the Mining Department Professor Richards was Secretary of the Institute for a number of years. Professor Richards has contributed over one hundred volumes to the literature of the Mining profession most of them being technical works on assaying. Owing to the fact that he is not in Boston all the time this is one of the few opportunities for students in the Mining Courses to hear Professor Richards.

There will be a meeting of the Executive Committee of the Society today at five o'clock in 2-Rogers at which time a program for the year will be arranged.

M. I. T. A. A.

The M. I. T. A. A. met in 8 Engineering C yesterday afternoon at 5:00 o'clock, and elected the following officers for the ensuing year: President, C. W. Loomis; Vice-president, J. W. Doon; Secretary, P. E. Holbert. The Advisory Council consists of C. W. Loomis, W. F. Dean and N. E. Tourtellotte.

ORCHESTRA

Meeting Today—Mr. Howard To Be Present.

The second meeting of men interested in founding a permanent Technology Orchestra will be held this afternoon at 5 o'clock in the Union. Such a large number of men have signified their intention of coming out that Mr. William Howard has been secured to offer suggestions concerning the work of the orchestra. The question of rehearsals and methods of organization will be discussed.

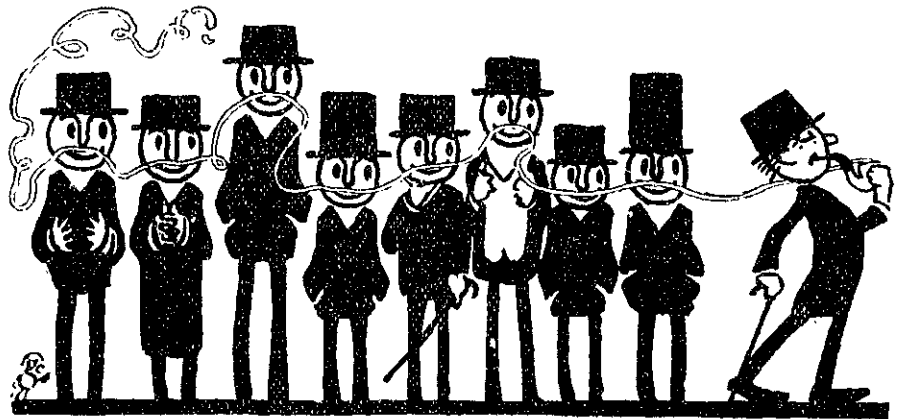
TOMORROW
“AT THE TECH OFFICE”

My representative, Mr. G. H. Kimball, Will display our Full Line of **Custom and Ready-to-Wear Clothing.** Your inspection is earnestly invited.

S. H. KNOPF

IMPORTER - TAILOR

125 Summer Street, - Boston, Mass.



m—m—m—m—m—m—m—m—m—! **isn't that lovely!!**

Take the trail of any real wise smoker with a pipe between his teeth and snatch a mellow whiff of fragrant "Tux."

Then you'll right away hunt up the nearest tobacco shop and gladly intern a dime in exchange for a green tin of pure smoke-delight.

"Tux" is going ahead of them all with a speed that makes it look like a race between a 60-horse-power motor-car and a steam roller. It's the fastest-growing brand of smoking tobacco in the world.

Tuxedo
The Perfect Tobacco for Pipe and Cigarette

Tuxedo is the original Burley smoking tobacco, that made pipe-smoking possible to many men, and the original "Tuxedo Process" has never been duplicated. It stands today as the most effective treatment for making the natural leaf deliciously mild and delightfully fragrant and for removing every trace of "bite."

Spend a week with Tuxedo. Then it will be just one week after another.

YOU CAN BUY TUXEDO EVERYWHERE

Convenient glassine wrapped, moisture-proof pouch . . . **5c**

Famous green tin with gold lettering, curved to fit pocket **10c**

*In Tin Humidors, 40c and 80c
In Glass Humidors, 50c and 90c*

THE AMERICAN TOBACCO COMPANY



FIELD DAY TEAMS
(Continued from Page One)

J. M. Todd
G. E. Johnson
H. W. Gleason
G. F. Malley
C. J. Nangle
C. H. Watt
W. H. Ryan
J. C. Howe
F. H. Appleton
Coyne

1918 Relay.

S. S. Kwan
K. L. Ford
R. W. VanKirk
E. A. Mead
M. M. Reed
O. C. Lorenz
D. W. McArldle
J. C. Avery
B. A. Merrick
C. I. Justheim
D. M. McFarland
W. R. Russert
Collier
Fisher

1918 Tug-of-War.

H. M. Blank
L. S. Blodgett
O. D. Burton (Captain)
N. T. Catlin
L. DeSalvo
D. Ely
Fuller
G. S. Gould
W. J. Henry
G. B. Hutchings
A. S. Johnson
R. G. Kimball

The Tech is in a position to offer you exceptional values in clothes and shoe trade. See the general manager or treasurer, at 5 o'clock any evening. Apply at once as our offer is good for one month only

**SCHRYVER'S
SEGAR STORE**

44 School Street
Originators of the Class Pipe

AGENTS FOR

**B. B. B., G. B. D., COMOY
and S. S. S.**

London Made French Briar Pipes

10% Discount to Tech Students

Do you need a suit or a pair of shoes? The TECH is in a position to supply your wants at extremely attractive prices. We represent some of the best dealers in Boston. See the Treasurer or the Gen. Mgr. and become acquainted with a method whereby you can save yourself money on suits and shoes.

C. L. Kingsbury
J. T. Leonard
F. A. Magoun
T. F. Milford
D. A. Montgomery
B. O. Pinkham
M. F. Parker
K. Reid
W. H. Turner
C. R. Tutein
W. Weber
F. H. Wells
S. K. Wiley
H. L. Wirt
J. C. Wooten
Counter
R. G. Mahony

1919 Football Team

Guppy
Rasmussen
Schippey
Root
Clark
Wales
Lewis
Sache
Reis
Hyde
Paige (Captain)
Thomas
Young

Substitutes

Strowbridge
Deane
O'Connor
Murphy
Gallagher
Gibbons (Mgr)

1919 Relay Team.

S. E. Scranton
C. H. Isley
W. M. Murphy
R. L. Bent
R. W. Scott
L. J. Goldstein
E. H. Bryant
S. E. Wright
E. Stubenbach
W. Pinkney
W. B. Clark
L. A. Jackson

Substitutes

D. Winter
R. L. Gilmore

1919 Tug-of-War.

T. Peltier
M. Untersee
H. Wasgatt
W. Maynard
J. Riegel
O. Camman, Captain
F. W. Boley
O. McLaughlin
H. Howes
J. Meader
H. Weymouth
R. H. Sherman
E. Doten
A. Muller
S. Breed
R. Pease
L. Pinther Hoffman
H. Whitcomb
G. Davis
S. Page
G. Irwin
F. Claffin
C. Sullivan
R. S. Palmer
G. French

Substitutes

B. Parker
C. Chayne
Counter
L. Dalton

You Should Allow Enough Time

FOR THE MAKING OF THAT OVER-COAT BEFORE THE FOOTBALL GAME

For Your Benefit we want your early order—to give us leisure in the making—that the best results may be given

We venture to say that we have the **Largest Stock of Overcoatings** of any tailoring house in New England, of a wide variety of design, and most dependable quality

Prices \$25 to \$50

BURKE & CO., Inc., Tailors

1246 Mass. Ave. (Harvard Sq.) Cambridge

18 School St., Boston

STONE & WEBSTER

Established 1889

OUR ORGANIZATIONS ARE PREPARED TO

FINANCE public utility developments.

BUY AND SELL securities of public utility corporations.

DESIGN steam power stations, hydro-electric developments, transmission lines, city and interurban railways, gas plants, industrial plants and buildings.

CONSTRUCT either from our own designs or from designs of other engineers or architects.

REPORT on public utility properties, proposed extensions or new projects.

MANAGE railway, light, power and gas companies.

Stone & Webster Securities Department
Stone & Webster Engineering Corporation
Stone & Webster Construction Company
Stone & Webster Expert Department
Stone & Webster Management Association

NEW YORK

BOSTON

CHICAGO

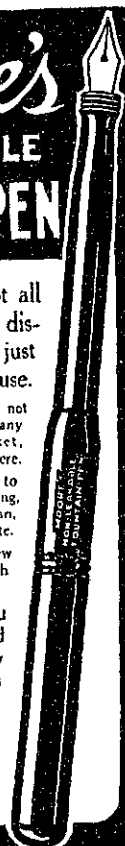
**Moore's
NON-LEAKABLE
FOUNTAIN PEN**

Fountain Pens are not all alike. Moore Pens are distinctly different. Not just in theory but in actual use.

1. A Moore Non-Leakable will not leak -- can be carried in any position -- in your pocket, suit case, trunk, -- anywhere.
2. A Moore is always ready to write -- needs no coaxing, jarring, jolting. Pen is always clean, wet with ink, ready to write.
3. No loose pen end to unscrew -- no loose parts to detach before filling.

Ask your dealer to show you the various shapes, sizes and pen points -- a style for every purpose and every individual preference.

American Fountain Pen Co.
ADAMS, CUSHING & FOSTER, Inc.
168 Devonshire Street
Boston, Mass.



**FRANK BROTHERS
Fifth Avenue Boot Shop**

New York



At The Tech Lower Office November 3

WITH OUR FALL LINE

MASS MEETING
(Continued from Page One)

songs. There were nearly four hundred present, the freshmen having the largest representation. William J. Farthing, President of the Senior class, opened the meeting with a short talk on the new policy for Tech Night. He said that the object will be to see the show, not to make one. Organized enthusiasm will be the slogan for the entire day on Friday.

The formation of the Field Day parade was outlined. The parade will start at 1.30 o'clock sharp, on Friday, from the front of Rogers Building. The Seniors will form on Rogers steps, the Juniors on the grass by Rogers, the Sophomores on the grass by Walker, and the freshmen on the steps of Walker. The line of march will be around Copley square, out Newbury street to Massachusetts avenue, across the bridge, past the new Technology, and thence to the Field.



R. H. WHITE, '16.

All Technology Cheer Leader.

Shakespeare, '16, spoke of the necessity for restraint Tech Night at the Colonial; since this affair has been put in the hands of the Institute Committee, an entirely different policy will be followed, and absolutely no "rough-house" of any kind will go, the penalty being the stopping of the show. No confetti or streamers are to be thrown.

The chief feature of the meeting was the enthusiastic practice of Technology songs, led by Cheer Leader White, with the Technique Band ably assisting in increasing the general volume of sound. A very marked improvement in the singing of all the songs was attained, especially in "Take Me Back to Tech," which was enlivened by a novel way of singing the chorus by classes. This will be used at the theatre Tech Night. The meeting closed with the Stein Song, and a cheer for the four classes.

FIELD DAY NOTICE

All men who were appointed as Field Day officials and have not as yet received their badges are asked to call for them at the Cage.

TECH BOILER PLANT
(Continued from Page Three)

The electrical outfit is interesting since the engine room will serve both as a sub-station and as a central station. The initial equipment will include three turbines, direct-connected to three generators of 750, 500 and 150 k. w. respectively, furnishing three-phase current at 2300 volts. There will also be one 150 k. w. turbo generator and two 150 k. w. motor generators furnishing direct current at 110 and 220 volts, and two 35 k. w. exciters, one steam and the other turbine driven. The current at the various voltages will be conducted to the buildings and laboratories in lead-covered cables running in special conduits.

The steam laboratory itself is to be located in the long building near and parallel to Massachusetts avenue. High pressure steam coming through the subway will be distributed to two mains below the ceiling of the first floor. There will be a superheater here connected at will with the machines at which tests are to be made. The condensers of the various engines in this laboratory are in the basement and take cooling water from one of the large hydraulic canals, passing the warmed water into a hot water return. In the basement there will be apparatus for determining the flow of superheated steam through orifices and turbine nozzles.

On the first floor of this building will be located the steam engines. They will include a Curtis turbine of about 75 k. w. capacity, a 30 h. p. Corliss with dynamometer attached to the flywheel, a 225 h. p. McEwen tandem compound, a compound engine and generator of the same make of 250 h. p. and a triple expansion Corliss. These engines will be ranged along the western wall of the building. On the opposite side of this laboratory there will be located a Brown engine driving a three-stage air compressor having a maximum pressure of 2500 pounds per square inch. In addition there will be two or three other compressors and a few small engines to illustrate additional types.

WATCH YOUR STEP
FRIDAY NIGHT
COLONIAL THEATRE

CARL A. ZAHN

Barbering Manicuring
Chiropody

Razors, Brushes, Perfumery
Haberdashery

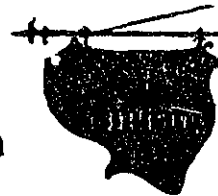
THE PLAZA COPLEY PLAZA
New York Boston.

GREENBRIER
White Sulphur Springs, West Virginia

A homelike, first-class hotel, proud of New England traditions, dating from Gen. Warren, yet newly furnished with every comfort & convenience. Long distance phone and hot and cold water in every room. Kept constantly clean by our vacuum plant. Rooms \$1.00 a day and up.

THE AMERICAN
VISIT THE RESTAURANT

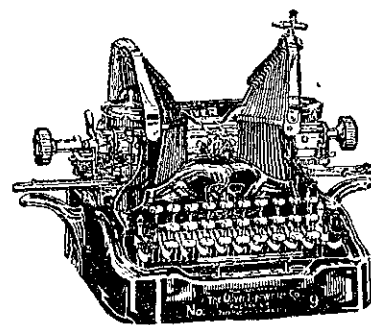
ITALIAN Restaurant
TABLE d'HOTE
DINNER 5 to 8.30
A LA CARTE



STRICTLY ITALIAN CUISINE
Italian Wines Music
BOYLSTON PLACE
Near Colonial Theatre

A New Model Typewriter!

The No. **9**
OLIVER
The Standard Visible Writer
BUY IT NOW!



Yes, the crowning typewriter triumph is here
It is just out—and comes years before experts expected it

For makers have striven a life-time to attain this ideal machine. And Oliver has won again, as we scored when we gave the world its first visible writing.

There is truly no other typewriter on earth like this new Oliver "9." Think of touch so light that the tread of a kitten will run the keys!

CAUTION!

The new-day advances that come alone on this machine are all controlled by Oliver. Even our own previous models—famous in their day—never had the Optional Duplex Shift.

It puts the whole control of 84 letters and characters in the little fingers of the right and left hands. And it lets you write them all with only 28 keys, the least to operate of any standard typewriter made.

Thus writers of all other machines can immediately run the Oliver Number "9" with more speed and greater ease.

WARNING!

This brilliant new Oliver comes at the old-time price. It costs no more than lesser makes—now out-of-date when compared with this discovery.

For while the Oliver's splendid new features are costly—we have equalized the added expense to us by simplifying construction.

Resolve right now to see this great achievement before you spend a dollar for any typewriter. If you are using some other make you will want to see how much more this one does.

If you are using an Oliver it naturally follows that you want the finest model.

17 CENTS A DAY Remember this brand-new Oliver "9" is the greatest value ever given in a typewriter. It has all our previous special inventions—visible writing, automatic spacer, 6½-ounce touch—plus the Optional Duplex Shift, Selective Color Attachment and all these other new-day features.

Yet we have decided to sell it to everyone everywhere on our famous payment plan—17 cents a day! Now every user can easily afford to have the world's crack visible writer, with the famous PRINTYPE, that writes like print, included FREE if desired.

TODAY—Write for Full Details and be among the first to know about this marvel of writing machines. See why typists, employers, and individuals everywhere are flocking to the Oliver. Just mail a postal at once. No obligation. It's a pleasure for us to tell you about it.

The Oliver Typewriter Co.
146 Congress Street, Boston, Mass.

Tech Barber Shop
 22 HUNTINGTON AVE.
 UP ONE FLIGHT
 Tailoring Done Next Door.

Students' Cast-off Clothing
 and other personal effects bought
 by
KEEZER
 369 Columbus Avenue
 Corner of Yarmouth Street
Highest Prices Paid for Same
 Phone, Write or Call
 Open Evenings to 9 o'clock
 B. B. 6843.

DON'T FORGET THE ADDRESS
 We make a special effort to win the
 esteem of Tech men.
COPLEY SQUARE PHARMACY
 E. G. BOSSOM, PROP.
Huntington Ave., Boston

ROOMS TO LET
 Pleasant furnished rooms for stu-
 dents at 212 Bay State road. Two
 large double rooms at \$2.50 per per-
 son per week, and one single room
 at \$3.00 per week.

HIGH-GRADE
Anthracite Coal
For Domestic Uses
 Our Crozer-Pocahontas Bituminous
 Supplied to the Institute
Burton-Thurber Coal Co.
 50 Congress St., Boston

Need a good reliable fountain
 pen? The Tech has a limited
 number of Moore's Non-leakable
 pens to sell. Call at The Tech
 office at 5 in the evening and
 learn of our mutual benefit
 scheme of buying suits, shoes
 and fountain pens.

Collins & Fairbanks Co.
Young Men's
Hats, Coats, Caps, Gloves
383 Washington St., Boston

RIFLE CLUB
 Last Trip Saturday — Indoor
 Work To Commence Soon.

The Rifle Club will hold its last
 outdoor shoot of the season this Sat-
 urday at Walnut Hill. As usual, the
 party will be limited to thirty men.
 A sign-up list, which will be replaced
 Thursday at six o'clock by a subsidi-
 ary list, has already been posted on
 the Union bulletin board.

Indoor shooting will commence as
 soon as a suitable range can be ob-
 tained. The club expects to allow
 its members to shoot several after-
 noons each week, and no restrictions
 will be placed upon the amount of
 ammunition used by each man. Spec-
 ial rates on ammunition enable the
 club to purchase large amounts at
 small cost.

A few score books are still left
 at the South Armory, and members
 may obtain one at any time without
 cost by applying to the armorer.

GLEE CLUB PRACTICE
 Coach To Be Present—First Cut
 Comes Monday.

On Thursday, the first coached re-
 hearsal of the year for the Glee Club
 will be held at the regular rehearsal
 hour of five o'clock in the Union.
 It is important that every man at-
 tend as the first concert is but two
 weeks away. The first cut will be
 made next Monday when the list of
 men to be retained will be published
 in the Tech. This schedule will con-
 tain some changes from the present
 tentative lists.

WATCH YOUR STEP
FRIDAY NIGHT
COLONIAL THEATRE

SWIMMING TEAM
 Meets Anticipated With Big Col-
 leges—Prospects Good.

A meeting of the members and
 candidates for the swimming team
 was held Monday at five o'clock in
 the Union. Plans for the future
 were discussed. Several meets with
 the big colleges are anticipated, but
 so far, none have been scheduled.
 There is promise of a very good
 team, as some excellent material has
 come out. Members of the team will
 have the privilege of the Boston
 Y. M. C. A.'s tank, providing they
 are members of the T. C. A.

SHOW COMPETITION
 Freshman Candidates For Assis-
 tant Publicity Manager.

The freshman competition for Sec-
 ond Assistant Publicity Manager will
 start this afternoon at five o'clock
 in the Show office. Publicity Man-
 ager R. S. Stevens, '17, will explain
 the work and give out the first as-
 signments. It is important that all
 men intending to come out report to-
 day as the competition will be short.
 Any men who cannot report today
 are asked to leave their names at
 the Cage for Manager Stevens.

FRESHMEN DEFEATED
 The freshman Cross Country team
 was defeated in a dual meet with
 Andover on Saturday, October 30.
 The run was held over the Andover
 course, which is a little less than four
 miles long. Herzog, captain of the
 freshmen, finished a few inches be-
 hind Captain Dudley, of Andover, in
 a thrilling finish. Andover won the
 run by placing five men out of the
 first six. The winner's time was
 21 min. 52 secs.

TECH UNION BARBER SHOP
 Located at the
Hotel Westminster
 Handy to the institute. Up-to-date,
 fashionable hair cutting by skillful bar-
 bers. The best hygienic and most per-
 fectly ventilated shop in the Back Bay.
THE TECH UNION BARBER SHOP



Students' Discount On
DRAFTING INSTRUMENTS
PAPER, TRACING CLOTH
TRIANGLES, T SQUARES
SLIDE RULES, PENCILS
 etc. etc.
BAY STATE LIQUID PAINTS
ENAMELS, STAINS and VARNISHES
Hardware and Garden Tools
Wadsworth Howland & Co., Inc.
 222 Clarendon Street
 139-141 Federal Street
 84 Washington Street

CO-OPERATIVE SOCIETY
 (Continued from Page One)

during the year 1914-1915 at the Har-
 vard store will receive in cash seven
 per cent of the money they paid. As
 a rule the dividend is about nine per
 cent, but the war affected the busi-
 ness of the store this past year.
 In the Technology branch of the
 store will be found all the commodi-
 ties for which there is a general
 call, and students may make pur-
 chases at the main store in Harvard
 Square, being credited with their
 dividend. Among the departments
 of the store are the men's furnish-
 ings, books, stationery, tailoring, in-
 cluding contract pressing and laun-
 dery, and furniture departments. A
 card gives the members a discount
 in certain of the Boston stores as
 is the case with the Institute So-
 ciety. Credit accounts may be made,
 bills being sent out every month.
 The Technology members of the So-
 ciety will be represented on the
 Board of Directors.

Browning, King & Co. Inc.
 407-409-411 Washington Street, Boston, Mass.
 Clothing, Haberdashery and Hats

DRESS CLOTHES
 Dress Suits - - - - \$28, \$38, \$50
 Tuxedo Suits - - - - \$25, \$35, \$45
SPECIAL FOR THIS WEEK
 Dress Coat and Trousers with White Pique Vest
 \$25.00
 The very latest model

Tech Union
Dining Rooms
 42 Trinity Place
 SERVICE:
A la Carte
Table d'Hote
Cafeteria

an "GOTHIC"
ARROW
COLLAR
 FRONT FITS CRAVAT KNOT
 PERFECTLY. 2 for 25c
 CLUETT, PEABODY & CO., INC., MAKERS