



At the  
Men's Store of  
New England



CLOTHING  
FURNISHINGS  
HATS  
SHOES



*Ashuman & Co.*  
*Boston*  
*Ashuman Corner*  
THE • SERVICE • STORE

**HANDBOOK**  
**OF THE**  
**Massachusetts**  
**Institute of Technology**

---

**Twenty-third Edition**  
**(Fifth Independent T. C. A. Edition)**

---

**COMMITTEE**

- E. W. Davis, '21, General Manager.  
E. W. Olcott, '21, Editor-in-Chief.  
C. W. Manville, '22, Assistant Editor.  
H. P. Baldwin, '21, Assistant Editor.  
D. N. Shaw, '22, Assistant Manager.  
R. H. Winde, '22, Assistant Manager.  
G. P. Schumacker, '22, Assistant Manager.  
W. C. Morse, '22, Assistant Manager.
- 

**Presented by the**  
**TECHNOLOGY CHRISTIAN**  
**ASSOCIATION**



President Maclaurin

## AN HISTORICAL SKETCH

The history of the Institute is intimately bound up with the lives of two great men, William Barton Rogers and Francis Amasa Walker. In 1860 Rogers prepared a memorial asking that the land between Boylston, Newkirk, Berkeley and Clarendon Streets in Back Bay be set apart for a polytechnic college. In the fall of that year the Massachusetts Institute of Technology was founded.

The Institute opened in 1865 with a class of only fifteen students. President Rogers guided the destinies of the growing school until 1870, when illness compelled his resignation. The decade from 1870 to 1880 was the most critical one in the Institute's history, and but for the heroic devotion of the Faculty, and the generosity of a few stalwart friends, the Institute must have closed its doors. In spite of his falling health, President Rogers again undertook the duties of the presidency. Death came to him upon the platform in Huntington Hall while he was addressing the graduating class of '82. In the words of his successor, "All his life he had borne himself faithfully and heroically, and he died, as so good a knight would surely have wished, in harness, at his post, and in the very part and act of public duty."

General Walker was inaugurated as president in 1881. During his administration the Institute grew "from a struggling technical school to a great scientific university." In 1897, when Walker died, like Rogers, at his post, there were 1200 students. Of far more consequence, though, than the mere growth in numbers, was Walker's influence upon the intellectual and moral tone of the school. His courage, energy and enthusiasm, and aggressive en-

## CALENDAR

		1919	1920	1921
College Year Begins.....		Oct. 6	Oct. 4	Oct. 3
Semi-Annual Examinations .....		Dec. 17-23	Dec. 16-22	Dec. 16-22
Christmas Vacation .....		Dec. 24- Jan. 4	Dec. 23- Jan. 2	Dec. 23- Jan. 2
	<b>1919</b>	<b>1920</b>	<b>1921</b>	<b>1922</b>
Second Term Begins.....		Jan. 5	Jan. 3	Jan. 3
Condition Examinations* and March Recess .....	Mar. 23-30	Mar. 14-21	Mar. 13-20	Mar. 12-19
Third Term Begins.....	Mar. 31	Mar. 22	Mar. 21	Mar. 20
Last Exercise, Third Term.....	June 14	June 1	May 31	May 29
Annual Examinations .....	June 16	June 2-15	June 1-14	May 31- June 12
Last Examination, Fourth Year..		June 4	June 3	June 2
Commencement Day .....		June 11	June 10	June 9
Examinations, College Entrance Examination Board	June 16-21	June 21-26	June 20-25	June 19-24
Summer Camp Begins .....	Aug. 5	Aug. 3	Aug. 2	Aug. 1
Entrance Examinations at Tech- nology Begin .....	Sept. 27	Sept. 25	Sept. 24	Sept. 23

Exercises are omitted on legal holidays.

\*Condition examinations of the first term are held during first part of this week.

dorsement of the Institute's plan of education, were the main elements in its successful development.

### ABOUT THE NEW TECHNOLOGY

March 19, 1913—Architect, Mr. Wm. W. Bosworth, was chosen.

December, 1913—Contractors, Stone & Webster, authorized to begin.

April, 1914—First run of concrete.

Cost of educational buildings now under construction, approximately five million; as planned, seven million.

Total cost of complete plant as planned, ten million.

Construction of reinforced concrete, faced with Bedford Limestone, except on interior courts which are faced with brick.

Practically all the foundation on piles from 15 to 40 ft., 25,000 piles being used.

Single floor area,  $3\frac{1}{2}$  acres.

Great Court, 360 feet square.

Minor courts, 165 feet square.

Buildings about the major court, four stories.

Wings about the minor courts, three stories.

Height of library dome, 150 feet.

Area for present educational buildings, 12 acres.

Area for future educational buildings, 14 acres.

Area for student portion, Walker Memorial, dormitories, etc., 8 acres.

Area of athletic field, 7 acres.

Total grounds, 50 acres.

Entered, fall of 1916.

Dedication exercises of New M. I. T., June 12, 13, 14, 1916.

Cornerstone of Walker Memorial laid June 12, 1916.

**FRESHMEN ADVICE**

1. Technology colors are cardinal red and silver grey.

2. The Institute songs and yells are given in this book. Learn them all. Always rise and remove your hat when the Stein Song is played or sung.

3. Join the professional society that pertains to the course you are taking. You will derive a benefit from this that is impossible to get from the classroom.

4. Payment of the Student Tax enables you to obtain expert medical advice, free of charge, from the Institute physician. His office is in room 8-101.

5. The Walker Memorial is a building for your use, and it not only offers social advantages, but also eating facilities, at a reasonable price. Patronize your school's cafeteria and grill room.

The offices of the Student Activities are also in the Walker Memorial Building.

6. Field Day is the big day of the year at Technology, for athletics. On this day the Freshmen and Sophomore classes meet in a crew race, football game, relay race, and tug-o'-war. At night the entire school goes to one of the Boston theatres to help re-establish peace. In the score, the relay and crew race count 4, the football game 3, and the tug-o'-war 2.

Members of the winning teams are awarded numerals, and the winning class has its numerals engraved on the Field Day Cup.

7. The Co-operative Society is a real student society, which has been in existence for 35 years, and pays around 10% in dividends each year. A dollar pays your membership fee, and enables you to secure



dividends on all your purchases made at the store, which is in the "Tech" block.

The store aims to supply all student needs in the way of books, instruments, haberdashery, sporting goods, etc., and there is also an up-to-date barber shop run in connection with the other departments.

A slack business piles up overhead charges. Every lessening of these charges in the store, will work to the advantage of the members. Consequently, it is your duty to yourself, and to your fellow students, to aid in making this Technology store a success.

**8. GO OUT FOR SOME ACTIVITY.  
DON'T BE DEAD.**

## THE WORDS OF THE FOUR PRINCIPAL TECH SONGS

---

### A STEIN SONG

Give a rouse, then, in the May-time,  
For a life that knows no fear!  
Turn the night-time into day-time  
With the sunlight of good cheer!  
For it's always fair weather  
When good fellows get together,  
With a stein on the table  
And a good song ringing clear.

#### Chorus:

For it's always fair weather  
When good fellows get together,  
With a stein on the table  
And a good song ringing clear.

Oh, we're all frank and twenty  
When the spring is in the air;  
And we've faith and hope a-plenty,  
And we've life and love to spare;  
And it's birds of a feather  
When good fellows get together,  
With a stein on the table  
And a heart without a care.

#### Chorus:

And it's birds of a feather  
When good fellows get together,  
With a stein on the table  
And a heart without a care.

For we know the world is glorious,  
And the goal a golden thing,  
And that God is not censorious  
When His children have their fling;  
And life slips its tether  
When good fellows get together,  
With a stein on the table  
In the fellowship of spring.

## Chorus:

And life slips its tether  
 When good fellows get together,  
 With a stein on the table  
 In the fellowship of spring.

When the wind comes up from Cuba,  
 And the birds are on the wing,  
 And our hearts are patting juba  
 To the banjo of the spring,  
 Then life slips its tether  
 When good fellows get together,  
 With a stein on the table  
 In the fellowship of spring.

## Chorus:

Then life slips its tether  
 When good fellows get together,  
 With a stein on the table  
 In the fellowship of spring.

## TAKE ME BACK TO TECH

I wish that I were back again  
 At the Tech on Boylston Street,  
 Dressed in my dinky uniform,  
 So dapper and so neat.  
 I'm crazy after Calculus;  
 I never had enough,  
 It was hard to be dragged away so young;  
 It was horribly, awfully tough—  
 Oh! give me some 'Ology, 'Ology,  
 tra-la-la-la—  
 Any old kind of 'Ology,  
 Tra-la-la-la-la-la-la-la-la-la.

## Chorus:

Take me back on a special train  
 To the glorious Institute—  
 I yearn for the inspiration of  
 A Technological toot!—

I'd shun the physical, quizzical Prof.,  
 And chapel and all that;—  
 But how I would love to go again  
 On a Scientific Bat.

Oh, back to the days that were free from  
 care,

In the 'Ology Varsity shop,  
 With nothing to do but analyze air  
 In an aneometrical top;  
 Or the differentiation  
 Of the trigonometric powers  
 Of the constant pi that made me sigh  
 In those happy days of ours.

'Rah for TECHNOLOGY!

'OLOGY, 'Ology, oh——

Glorious old TECHNOLOGY!

'Ology, 'Ology, 'Ology, 'Ology.

M-a-S-s-A-c-H-u-S-e-T-t-s  
 I-n-S-t-I-t-U-t-E-o-F t-E  
 C-h-N-o-L-o-G, and Y comes after G.  
 Massachusetts Institute of Technolo-gee.

'Rah for TECHNOLOGY!

'OLOGY, 'Ology, Oh——

Glorious old TECHNOLOGY!

'Ology, 'Ology, 'Ology, 'Ology.

## THE CARDINAL AND THE GRAY

## DEAR OLD M. I. T.

The sun with glowing crimson  
Has ting'd the sky's dull gray;  
The glory of the sunset  
Uplifts our flag today;  
While here beneath our colors,  
With hearts that never yield,  
Our boys are fighting onward,  
Fighting onward 'cross the field.

## Chorus:

Fight on boys, we are cheering for you,  
For we want you to win today;  
Do your best, we are all behind you,  
And you're wearing the Red and Gray.  
Though the odds may be great against you,  
Full of sturdy courage be;  
And we'll raise a song of victory  
For dear old M. I. T.

Before old Harvard's crimson,  
Before the rows of Brown,  
Before the green of Dartmouth  
Our colors will not down;  
Though Amherst's white and purple  
Bid the Red and Gray to yield,  
Our cheer, still strong and clear, boys,  
Will ring across the field.

## Chorus:

On the days that are before us  
We will gather as of yore,  
And raise in swelling chorus,  
The grand old cheer once more.  
And when the battle's over  
Then at the close of day,  
Once again we'll raise our colors,  
Victory crowns the Red and Gray.

## THE CARDINAL AND THE GRAY

The team is out, all sing and shout,  
 We'll show them how to win.  
 The men are strong, the battle long,  
 And now they're digging in.  
 So shout and cheer and let them hear  
 That Tech is with them now.  
 Cheer Tech—Cheer Tech—Cheer for the  
 victory.

### Chorus:

Three cheers for Tech—Our lay will surely  
 win the day;  
 All shout and sing for the Cardinal and  
 the Gray.  
 With every "T" let your voice and spirit  
 be,  
 Fight with all your might and give to  
 Tech the victory.  
 Rah—Rah—Rah—Three cheers for Tech—  
 Our lay will surely win the day;  
 All shout and sing for the Cardinal and  
 the Gray.  
 With every "T" let your voice and spirit  
 be,  
 Fight with all your might, and give to  
 Tech the victory.

When Tech is out, we all will shout,  
 And loudly we will cheer.  
 Our colors high will ever fly,  
 Our voices all will hear,  
 For Tech is best and all the rest  
 Will soon be left behind,  
 Cheer Tech—Cheer Tech—Cheer for the  
 victory.

## THE TECH CHEER

M. I. T. Rah! Rah! Rah!  
 M. I. T. Rah! Rah! Rah!  
 M. I. T. Rah! Rah! Rah!  
 Technology!

## UNDERGRADUATE ACTIVITIES

If you come to Tech with the preconceived notion that all you are expected to do is to study, get it out of your head as soon as possible. You have got to study and study hard. But remember that the grind rarely makes the good engineer. Go out for activities, and thereby serve Tech and enrich your own college life. As soon as you enter Tech in the fall start to get a line on the various activities. Choose some one or possibly two, for which you feel yourself especially fitted either through liking or natural ability, and stick to them. Avoid scattering your efforts over too many, else you are likely to lose out altogether.

Below will be found short articles on most of the important activities:

### TECHNIQUE

**Technique** is the year-book of the Institute, published by a board of Juniors. Its object is to preserve, in compact and artistic form, a record of Technology life and activities for the year in which it appears. For several years past it has included the Senior Portfolio, containing a picture of each Senior and statistics concerning him.

The Board of Publication consists of an Editor-in-Chief, Business Manager, Treasurer, and department editors for Athletics, Portfolio, Societies, Faculty, Grinds, Statistics, Photographs and Art. According to a recent ruling, the Business Manager and Associates, and the Treasurer are elected as a result of a competition run by the members of the previous board. The Art Editor is also chosen by competition. The other editors are chosen during the Sophomore year by an Electorical Commit-

tee of twenty-five men elected by the class for this purpose. To get a position on the **Technique Board** is a distinct honor.

The book is introduced to the student body at the **Technique Rush**, the first event of **Junior Week**. Twenty copies autographed by the President of the Institute, are fought for by those who have the necessary pluck and nerve to enter the **Rush**. The first four and twentieth books are free.

The standard of **Technique** has always been high, and it stands today in the front rank of **College year-books**.

### THE TECH

The **Tech** is the students' newspaper of the Institute. Formerly it was issued tri-weekly during the college year, but since the entrance of the United States into the war, it has appeared twice a week continuously. It is edited and published entirely by undergraduates. The paper includes within its scope the reporting of undergraduate activities at the Institute, the doings of **Technology Alumni** in the United States and abroad, and articles dealing with affairs not directly connected with the Institute but bearing particular interest to the readers of the paper.

Positions on the staff of **The Tech** are usually filled by men from the three lower classes, elected by competition, to which all undergraduates are eligible.

Attempts made during past years to obtain and present more accurate information upon the subjects written for publication by **The Tech's** news staff have given the accounts an increasing reliability.

Subscription \$1.50 for 53 issues; 2c. a copy.



**TECH SHOW**

The Tech Show, which is annually produced by the undergraduates during Junior Week, is a musical comedy written, acted, staged and orchestrated entirely by the students. It is one of the largest activities at Technology, about a hundred and fifty men taking part in its production. Several performances are given in Boston, and trips are made to various New England cities, where the Show enjoys the reputation of being one of the foremost college dramatic productions. Profits are usually expended for the benefit of Athletics.

The Tech Show is one of the few large college activities entirely managed by undergraduates. Competitions for positions in the Management are held during the fall term and all students are allowed to compete. The actual production of the play is commenced at the beginning of the second term, when a call for candidates for the cast, chorus, ballet and orchestra is issued. Competitions for lyrics and music are held at various times during the fall. The scenery and costumes, also designed by undergraduates, are chosen by competition, and as a result the most modern ideas in staging are presented.

**COMBINED MUSICAL CLUBS**

The Institute is represented by musical clubs organized under one management and known as the Combined Musical Clubs. Of these the Glee Club is the oldest, having been founded in 1884. In 1886 a combined Mandolin, Banjo and Guitar Club was organized which was split up into the Mandolin Club and the Banjo Club the following year.

The membership of the clubs is between twenty and thirty men apiece, the Glee Club being the largest. Each club has a leader and an assistant leader who drill the men. The requirements for admission are not strict and a man possessed of a reasonable amount of instrumental skill or a good voice should not hesitate to try out. Try-outs are held early in the fall and the personnel is the result of open competition.

There are generally about a dozen local concerts held during the season, most important of which are the Winter Concert in December and the Spring Concert, given during Junior Week, both of which are held at the Hotel Somerset and are followed by dancing. This season the management is planning a trip during the March Vacation. The program is not arranged yet but the plan is to give six concerts during the week in different cities, going as far west as Chicago.

The management of the Combined Clubs consists of a General Manager, a Publicity Manager and a Treasurer. In addition there are two Freshman Assistants chosen as the result of a competition starting in the fall term and ending sometime after Christmas. As in the other activities the holding of one of the minor positions leads to a better one the following year and to the position of General Manager in the Junior Year.

### THE TRACK TEAM

Track is Technology's athletic mainstay. It has for a long time been the major sport at the Institute, and is even more so now that here at the new site a modern, well-kept track and field are at the instant disposal of the students. In the course of a season Technology com-

petes in cross-country races, and in the regular indoor and outdoor intercollegiate meets, as well as in dual meets, with Princeton, Harvard, Maine, Bowdoin and other colleges. Technology has always put a strong team into the field and has produced not a few intercollegiate champions. But few teams are composed wholly of champions, and the Track Team offers almost unlimited opportunities for everyone.

### TENNIS

Within the past two years, tennis at the Institute has been developed to a considerable extent. In the Fall, a team tournament open to all Technology students is held. The winner is awarded a **TTT**. Positions on the team are obtained through elimination matches, the four highest men on the list comprising the team. Subsequent changes in the ranking may be made by challenges. Besides the 'Varsity, there is also a Freshman team. Last year both teams had attractive schedules, the 'Varsity making a trip to Yale and Trinity College, as well as playing a good many matches at home.

### WRESTLING

Due to the various factors such as lack of veteran material, inability to obtain intercollegiate competition, and accidents to the best men, the wrestling team last year suffered a bad season. However, the substitution of wrestling by the freshmen in place of gymnasium work was even more popular than ever, and interclass competition was the prevailing spirit of the season. Members of the 'Varsity team, and Mr. Gracey, are always ready to coach the new men, so that Freshmen need not hold back from taking up wrestling for lack of previous training.

## SWIMMING

The record established by the Technology Varsity swimming team is one that places it among the best in the country. Although our representatives have met the fastest college teams in the East, they have been defeated only twice in the last four years. The season consists of from eight to twelve dual meets with such colleges as Brown, Wesleyan, Amherst, U. of P., Princeton, U. S. Naval Academy, and Yale. As the team is a member of the Intercollegiate Swimming Association, a representation is sent annually to the Individual Intercollegiate Championships.

The coach issues a call for candidates shortly after Field Day, and each man is given individual attention. Most of the Institute's best swimmers have been developed from men who have had no previous experience whatsoever. Practice is held at the Boston Y. M. C. A. tank, and may be substituted by Freshmen in place of calisthenics.

The freshman team has a schedule of ten meets with the leading academy and college freshman teams. The freshman relay team is sent to the Intercollegiate Championship match. Late in the season the class championships are held.

## THE VOO DOO

The Voo Doo is a combination of The Technology Monthly and The Woop Garoo. It strives to bring before the students an outline of the activities of the month, and also pictures of interest about the Institute. In addition to this it contains a department of original humor, both stories and cartoons. All positions on the board and staff are open to competition.

Freshmen have a wide field in which to exercise their talents on this magazine as men are needed for the business, art and editorial departments. Any freshman is eligible for membership on the staff, and this will lead to a position of greater responsibility if he proves himself capable. Subscription, \$1.00 a year; 15 cents a copy.

### CREW

With the removal of the Institute to the banks of the Charles, in 1916, Crew naturally came to the foreground. It is now a fully recognized sport, being a member of the M. I. T. A. A. and interesting probably as many men as any other sport, with the possible exception of Track. Last spring the third annual Field Day Race was held. Last spring, however, the Advisory Council on Athletics made the Crew Race a part of the regular Field Day Program, specifying it would count four points, therefore the crew race goes a good way toward winning Field Day. The winning crew and its manager are now also awarded numerals. The Freshman crew race high schools and prep schools such as Noble, Greenough, and Middlesex. Crew should appeal strongly to the Freshmen as it requires very little extra time and it may be substituted for the compulsory gym work. Three positions on the managing staff of the Crew are open to Freshmen. Awards are made after a short competition among the candidates during the Fall and early Spring months.

### RIFLE CLUB

The Rifle Club stands unique among Institute organizations as the only one backed and supported by the United States Gov-

ernment. In return for this assistance the War Department expects the club to turn out from inexperienced men as many fair riflemen as possible, and herein lies the dominant objective of the association.

In following out this policy, however, the Team is not neglected, and in 1915 this club succeeded in winning the Inter-collegiate championship of the United States, at the same time breaking all previous records. The Team is open to all members of the club, and is granted the Institute insignia.

The Rifle Club makes an especially attractive proposition for Freshmen, as the dues are low and the time expended small, necessitating no neglect of that all important subject of study.

## CLASS OFFICERS

1920

President.....	Norris G. Abbott, Jr.
Vice-President.....	Kenneth F. Akers
Secretary.....	Kenneth J. Roman
Treasurer.....	Malcolm S. Burroughs
Institute Committee....	John C. Nash, E. D. Ryer.
Executive Committee..	Percy Bugbee, K. D. Patterson.

1921

President.....	Garvin Bawden
VicePresident.....	L. W. Conant
Secretary.....	F. W. Kittredge
Treasurer.....	Elmer W. Davis
Institute Committee....	R. J. Spitz, W. F. Young, Jr.
Executive Committee...	H. P. Junod, R. W. Barker.

1922

President.....	Warren T. Ferguson
Vice-President.....	W. C. Morse
Secretary.....	W. B. Purinton
Treasurer.....	C. E. Brokaw
Institute Committee...	S. M. Bidell, Abbot L. Johnson.
Executive Committee...	N. O. Robinson, E. W. Hammond.

## TECHNOLOGY CHRISTIAN ASSOCIATION

### Officers

Scott H. Wells, '20.....President  
 Norris G. Abbott, '20.....Vice-President  
 Creighton B. Stanwood, '20.....Treasurer

### Purpose

The Technology Christian Association aims to be of practical service to every student at the Institute, to help every man live up to the best that is in him, and to help Technology realize its highest ideals. Its purpose is "To unite all men of the Institute who desire the moral and religious welfare of the student body, for the purpose of promoting among them Christian principles of thought and action."

### Membership

All students and members of the Institute who are in sympathy with the objects of the Association and wish to co-operate in promoting them are eligible to membership. No membership fee is charged but subscriptions to the budget of the Association are solicited.

### Organization

There is an Advisory Board of alumni who maintain a General Secretary and his Assistant and sustain advisory relations with the undergraduate organization. Direction of all Association affairs is in the hands of the Cabinet composed of officers, heads of departments and chairmen of all committees. In the interim of Cabinet meetings, the business of the Association is carried on by the Executive Committee,



which is made up of the officers and the heads of departments.

### History

Previous to 1895 there was an organization of a few men known as the Technology Christian Union. In 1895 this was disbanded, and a M. I. T. Y. M. C. A. was organized as a student branch of the Boston Y. M. C. A. In the spring of 1908 the Association was reorganized as the Technology Christian Association, a self-supporting, individual, Technology organization, with an Advisory Board which has financial responsibility, and employs a General Secretary. Its affiliation is recognized with the Intercollegiate Young Men's Christian Association of North America.

## DEPARTMENTS

### Student Service

Samuel Vadner, '21.....Chairman

In charge of the Freshman Advisory System of providing upper classmen to aid Freshmen during the opening days of the year, the maintenance of an information bureau during registration, the investigation of rooming and boarding places, the employment bureau, and the promoting of friendly work for foreign students.

### Administration

C. B. Stanwood, '20.....Chairman

Publishes the "Tech Bible," carries on the Membership and Finance campaigns, keeps up the office files and other clerical work, conducts the book exchange, and carries on all advertising and other business of the Association.

**Religious Education**

Harold Kepner.....Chairman

Conducts the Discussion Groups for Freshmen and upper classmen, provides speakers for T. C. A. Talks, and for fraternities, secures attractive, recent books for recreational reading, aids students in establishing congenial church relations, and in general promotes thinking on intellectual and religious questions.

**COMMITTEE CHAIRMEN**

Room Investigation.....Warren Howland

Activity File.....J. Howard Flather

Publicity.....Harrison Folinsbee

Book Exchange.....Edwin R. Clark

**"Tech Bible"**

Editor-in-Chief.....E. W. Olcott, '21

Assistant Editors.... { C. W. Wanville, '22

                                  { H. P. Baldwin, '21

General Manager.....E. W. Davis, '21

Assistant Managers..D. N. Shaw, '22; R. H.

    Winde, '22; G. P. Schumacker, '22; W.

    C. Morse, '22.

**ADVISORY BOARD****Executive Committee**

P. R. Ziegler, '00, Chairman.

H. S. Ford, Treasurer—Bursar, M. I. T.

Alfred E. Burton—Dean, M. I. T.

Prof. A. E. Norton.

F. R. Kneeland.

Prof. George B. Haven, '94.

Walter B. Snow, '85.

**Co-operation**

William C. Ewing, '97—Superintendent, Wells Memorial Institute.

Arthur S. Johnson—President, Boston Y. M. C. A.

Frank L. Locke, '86—President, Boston Y. M. C. U.

Prof. Charles F. Park, '92—Director Lowell Institute School for Industrial Foremen.

Walter B. Russell, '97—Director Franklin Union.

Arthur L. Williston, '89—Principal, Wentworth Institute.

**Finance**

A. Farwell Bemis, '93—Member of Corporation, M. I. T.

Leonard C. Wason, '90.

Henry Morse, '72.

Francis R. Hart, '89.

Charles Eaton, '85.

George Wigglesworth—Member of Corporation, M. I. T.

## CHURCHES

These churches in Boston\*\* are those attended most largely by Tech men. Most of these have an active group of Technology students who will welcome you. The churches in Cambridge\* are those most largely attended by Harvard men. All of them have special classes for students. Wear your M. I. T. button when you go to church as it will help other Technology men to identify you.

For a more complete list of service see the Church Directory of the Saturday Evening edition of the Boston Transcript.

**Appleton Chapel**, Harvard University. Service at 11.00 a. m. Selected preachers, some of the best in the country.

## BAPTIST

**The First Baptist Church in Boston\*\***—Founded 1665, cor. Clarendon St. and Commonwealth Ave. Rev. Austen Kennedy DeBlois, D. D.; Ph. D., minister. Sunday morning service, 10.30.

**Old Cambridge Baptist Church\***—Between Mass. Ave. and Harvard St., near the Harvard Union. Rev. Woodman Bradbury, pastor. Students' Bible Class, 12 m, Christian Endeavor, 7.00 p. m.

## CONGREGATIONAL

**Central Church\*\***—Corner Berkeley and Newbury Streets. Rev. Willard L. Sperry, minister. Morning service, 10.30. Vesper service, 4.30.

**Mount Vernon Church\*\***—Just across the river, cor. Beacon St. and Mass. Ave. Robert J. Watson, assistant minister. Sunday services, 10.45 a. m. and 7.45 p. m. Young

People's Social Tea, 6 p. m. Young People's Discussion Hour, 6.45 p. m.

**First Church in Cambridge\***—Cor. Garden and Mason Sts. Rev. Raymond Calkins, D.D., minister. Morning service and sermon at 10.30 o'clock. Young People's Meeting at 7.45 p. m.

**Old South Church\*\***—Copley Square, Rev. Geo. A. Gordon, D.D., minister. Rev. Willis H. Butler, associate. Sunday services, 10.30 a. m. and 7.30 p. m. Young Men's Bible Class, 12 m.

**First Church in Cambridge (Cong.)\***—Opposite the Washington Elm, Cambridge Commons. Cor. Garden and Mason Sts. Rev. Raymond Calkins, minister. Morning service, 10.30 a. m. Evening service, 4.30 Nov. to May. Young People's Alliance for students, 7.15 p.m. Address and discussion followed by social hour and refreshments.

**Union Congregational Church\*\***—Columbus Ave. and West Newton Sts. Rev. Ernest Graham Guthrie, minister. Mr. F. L. Fay, assistant. Sunday services, 10.30 a. m. and 7.30 p. m. Special classes for students, 12.10. Young People's meetings, 6.30 p. m. Fireside socials, program and refreshments, 5 p. m.

**Prospect St. Congregational**—Near Central Sq., Cambridge. Rev. Wm. Macnair, pastor. Morning service, 10.30. Evening service, 7.30. Christian Endeavor, Young People's, 6.30 p. m.

## EPISCOPAL

**Trinity Church in the City of Boston\*\***—Copley Square. Clergy—Rev. Alexander Mann, D.D., rector; residence, 233 Clarendon St. Rev. Reuben Kidner, assistant minister. Rev. Gabriel Farrel, assistant minister. Sunday services, Holy Commun-

ion, 8 a. m. Also a second Communion at 10.30 a. m. on the first Sunday of the month. Morning service and sermon, 10.30 a. m. Evening prayer and sermon, 4 p. m.

### UNITARIAN

**The Second Church in Boston\*\***—Audubon Circle on Beacon St. Samuel Raymond Maxwell, minister. Sunday service, 11 a.m.

### METHODIST

**People's Temple\*\***—Columbus Ave., cor. Berkeley St. Rev. Joseph P. Kennedy, D.D., pastor. Morning service, 10.30 a. m.; Evening service,, 7.45 p. m. Everyone welcome.

**Epworth Methodist Church\***—Mass. Ave., opposite Cambridge Commons. Rev. Dr. Elmer A. Leslie pastor.

**Bromfield-Tremont\*\***—Concord and Tremont Sts. Rev. Kelley Jenness.

**Harvard St. M. E.\***—Rev. E. A. Elliott, D.D., 177 Hancock St., Cambridge.

**Grace Methodist\***—Magazine Street, cor. Perry. Rev. H. I. Bailey, 19 Cottage St. Cambridge.

### LUTHERAN

**St. Mark's English\*\***—29 Winthrop St., Roxbury. Rev. E. L. Miller, pastor. Morning worship with sermon at 10.30. Sunday School at 11.45. No evening service.

### PRESBYTERIAN

**First Presbyterian Church\*\***—Columbus Ave. at Berkeley St. Rev. Isaac Ward, D.D., pastor, will preach at 10.30 a. m. and 7.30 p. m. Cordial welcome. Sunday School at 12 noon. Classes for all.

**ROMAN CATHOLIC**

**The Cathedral\*\***—Washington and Union Park Streets.

**St. Cecelia\*\***—Belvidere and St. Cecelia Sts., near Boylston St. and Mass. Ave. Rev. John J. McGarry, administrator. Sunday Masses, 6, 7, 8, 9, 10, 11 and 11.30 a. m.

**St. Paul's Church\***—Mt. Auburn St., cor. Holyoke St. Rev. John Ryan, pastor.

**CHRISTIAN SCIENCE**

**The First Church of Christ\*\***—The Mother Church, Falmouth, Norway and St. Paul Sts., Boston, Mass. Sunday services, 10.45 a. m. and 7.30 p. m. Sunday School, 10.45 a. m. Testimonial meeting every Wednesday evening, 7.30.

**JEWISH**

**Temple Adath Israel\***—Commonwealth Ave. and Blanford St. Harry Levi, rabbi. Services Saturday, 10.30 a. m. and Sunday 11 a. m.

**FRATERNITIES AT TECHNOLOGY**

Sigma Chi.....	532	Beacon St.
Theta Xi.....	406	Marlborough St.
Delta Psi.....	428	Charles River Road
Chi Phi.....	44	The Fenway
Delta Kappa Epsilon.....	104	Charles River Rd.
Phi Beta Epsilon....	400	Charles River Rd.
Delta Upsilon.....	526	Beacon St.
Sigma Alpha Epsilon.....	484	Beacon St.
Delta Tau Delta.....	4	Ames St.
Phi Gamma Delta..	491	Commonwealth Ave.
Phi Sigma Kappa.....	517	Beacon St.
Theta Chi.....	161	Bay State Road

Phi Kappa Sigma.....	203 Bay State Road
Alpha Tau Omega.....	37 Bay State Road
Theta Delta Chi.....	334 Harvard St.
Lambda Phi.....	493 Commonwealth Ave.
Lambda Chi Alpha.....	200 Bay State Road
Beta Theta Pi.....	179 Bay State Road
Kappa Sigma.....	512 Commonwealth Ave.
Zeta Beta Tau	
Sigma Alpha Mu	
Phi Kappa.....	526 Newbury St.

### SOCIETIES

K <sub>2</sub> S	Vectors
Pi Delta Epsilon	Osiris
Theta Tau	The Beaver
Masque	Stylus
Alpha Chi Sigma	

### CLUBS

Walker Club	Chinese Club
Latin American Club	Cosmopolitan Club
Catholic Club	Menorah Society
Rifle Club	Cleofan
Wireless Club	(Women's Club)
Air Service Club	

### PROFESSIONAL SOCIETIES

Civil Engineering, Pres. E. B. Murdough, '20
Mechanical Engineering, Pres. H. O. Davidson, '20
Architectural.....Pres. D. C. Sanford, '19
Naval Architecture...Pres. P. F. Maher, '20
Electrical Engineering.Pres. H. B. Deal, '20
Corporation XI..Pres. M. S. Burroughs, '20
Mining Engineering..Pres. A. A. Brown, '20
Chemical.....Pres. A. C. Atwater, '20



**CONSTITUTION  
OF THE****MASSACHUSETTS INSTITUTE OF TECH-  
NOLOGY UNDERGRADUATE  
ASSOCIATION****Preamble.**

Whereas, it seems wise that all activities among the students of the Mass. Inst. Tech. should be so organized and conducted as to work for the good of the welfare and renown of the MASSACHUSETTS INSTITUTE OF TECHNOLOGY, it is fitting that some central organization, chosen and controlled by the student body, should, as representing that body, have and exercise general powers as supervision over all individual activities insofar as they affect the student body as a whole.

To this end it seems necessary that the entire body of undergraduates should be brought together as a unit in order that legislation and executive powers may be transferred upon such a central body as is mentioned in the preceding paragraph. It is, therefore, enacted by the undergraduates attending the MASSACHUSETTS INSTITUTE OF TECHNOLOGY that such a general organization should be effected, and to this end the following constitution governing the student body is adopted:

**CONSTITUTION****ARTICLE I.****Name of Organization.**

The name of this organization shall be the MASSACHUSETTS INSTITUTE OF TECHNOLOGY UNDERGRADUATE ASSOCIATION.

## ARTICLE II.

### Purpose.

The purpose of this organization is to regulate and control the acts of the student body in its relation to the Institute and to the general public, and to exercise such supervision over the several student activities as will insure that the same are conducted in the best interest of the student body as a whole and to the credit of the MASSACHUSETTS INSTITUTE OF TECHNOLOGY.

## ARTICLE III.

### Membership.

All registered students at the Massachusetts Institute of Technology are by virtue of such registration members of this organization, such membership to be subject to such rules and regulations as may be herein or hereinafter enacted by this organization.

## ARTICLE IV.

### Institute Committee.

Section 1. All the legislative and executive powers of this association are hereby invested in a representative body to be chosen as hereinafter provided. This body shall be known as the INSTITUTE COMMITTEE.

Section 2. All acts and decisions of the Institute Committee shall be considered to be facts and the decisions of this Association, except that on petition presented in writing by fifty students, within ten days of the enactment of such acts and decisions by the Interstate Committee shall be presented to the Association for ratification or rejection, as is provided in Section 3.

Section 3. On receipt of a petition as provided in Section 2, the Institute Committee shall, within four days, issue a call for a general vote on the matter in question, the same being taken by written ballot within fourteen days but not earlier than seven days, after the issue of such a call. Two-thirds of the ballots cast shall be necessary to annul any act or decision of the Institute Committee.

Section 4. The Institute Committee shall consist of three members of each class, of whom one shall be the Class President, the other two to be elected at large; and one from each of the following undergraduate organizations:

- Architectural Society
- Chemical Society
- Civil Engineering Society
- Cosmopolitan Club
- Electrical Engineering Society
- M. I. T. A. A.
- Mechanical Engineering Society
- Mining Engineering Society
- Musical Clubs
- Tech Show
- Technique
- The Tech
- The Voo Doo
- Technology Christian Association
- Naval Architecture Society
- Walker Memorial Committee
- Finance Committee.
- Dormitory Committee.

Section 5. Any other activity now existing or hereafter duly organized by the undergraduates may, by two-thirds vote of the Institute Committee, be granted representation thereon, and any activity having a representative on the committee may, by a similar two-thirds vote, be denied such a representation, provided notice of

the proposed action of the Committee shall have been given the members of the activity and full opportunity granted them to present arguments and reasons why such action should not be taken.

Section 6. After the acceptance of this Constitution by the student body, the election of representatives on the Institute Committee on the part of class organizations or other student activities shall be deemed an acceptance of this Constitution and its authority.

#### ARTICLE V.

##### **Organization of the Institute Committee.**

Section 1. The officers of the Institute Committee shall consist of a President, Vice-President, Secretary and Treasurer, who, with two members elected from the Committee-at-large, shall constitute an Executive Committee.

Section 2. The President of the Senior Class shall be the President of the Institute Committee. All other officers of the Committee shall be chosen annually by the Committee by written ballot.

Section 3. The Institute Committee shall enact such By-Laws as may be deemed necessary, and not inconsistent with the provisions of this Constitution.

#### ARTICLE VI.

##### **Amendments.**

Amendments to this Constitution may be recommended by the Institute Committee or by a petition of one hundred (100) members of the association. Any amendments so recommended shall be submitted by the Institute Committee to the entire body for consideration and adoption. Full notice of such proposed amendments shall

be submitted to the entire student body for consideration by publication for posting at least thirty days before the day set for voting; two-thirds of the votes cast shall be necessary to adopt the same provided twenty-five per cent. (25%) of the total membership vote.

Article V, Section 1, was amended during the year from the original section reading:

"The officers of the Institute Committee shall consist of a President, Vice-President and Secretary-Treasurer," etc.

## BY-LAWS

### ARTICLE I.

#### Name.

The name of this organization shall be the Institute Committee, as provided for in Article IV, Section 1, of the Constitution of the Massachusetts Institute of Technology Undergraduate Association.

### ARTICLE II.

#### Purpose.

The function of this Committee shall be such as is stated in Article IV, Section 1, of the Constitution.

### ARTICLE III.

#### Membership.

Section 1. The membership of this Committee shall be as provided for in Article IV of the Constitution.

Section 2. The members of this Committee shall be chosen by the several classes and activities, and shall assume office upon election. Each activity shall send to the Institute Committee the name of its representative upon his election. In

case the official representative cannot be present at a meeting the Institute Committee may send a substitute.

Section 3. The members of this Committee shall hold office for one year.

Section 4. All vacancies occurring during the school year shall be filled by the activity in question at a special election. With the representatives to the Committee from the classes the Governing Boards of the classes are given the right to fill such vacancies.

## ARTICLE IV.

### Organization.

The officers and executive committee of this Committee, as provided for by the Constitution, Article V, Sections 1 and 2, shall, with the exception of the President, be elected by written ballot at the first meeting of the Institute Committee after class elections in May.

Section 2. The Standing Committees of the Institute Committee shall be the:

Walker Memorial Committee,  
Point System Committee,  
Bulletin Board Committee,  
Budget Committee.

Section 3. The members of the Point System Committee and Bulletin Board Committee shall be appointed by the Executive Committee within two weeks after the first meeting of the Institute Committee, such appointments to be subject to ratification by the Institute Committee.

The chairman of the Point System Committee and Bulletin Board Committee shall be chosen from the membership of the Institute Committee.

The chairman of the Walker Memorial

Committee shall be appointed from the Junior Class by the Executive Committee, subject to ratification by the Institute Committee, at its first meeting in May of each year, and shall hold office for one year.

Three other members shall be appointed at the same time as the chairman. At least two of these shall be Sophomores or Juniors during their term of office. The fifth member shall be the Walker Memorial Proctor, appointed by the Bursar.

The Budget Committee shall consist of the Treasurer of the Institute Committee as chairman, two undergraduate members elected by the Institute Committee and three alumni members elected by the Alumni Council and subject to the ratification of the Institute Committee.

The chairman of the Budget Committee shall serve on the Finance Committee and the chairman of the Finance Committee shall serve on the Budget Committee.

Section 4. Special Committees. There shall be a Finance Committee, which shall consist of a chairman, who shall be a Senior elected by the Institute Committee; the Treasurers of all the various classes and activities; and three Alumni members, the latter to be appointed by the Alumni Council, subject to ratification by the Institute Committee. Any activity shall be fined \$0.50 every time its treasurer is absent from a regular meeting of the Finance Committee.

Section 5. There shall be a Dormitories Committee, composed of seventeen duly elected residents of the dormitory, whose chairman shall be a dormitory resident and ex-officio a member of the Institute Committee.

Section 6. There shall be an Activities Committee, consisting of three men appointed by the Executive Committee, subject to the ratification of the Institute Committee. The chairman of this committee shall be ex-officio a member of the Institute Committee.

Section 7. A "Tech Night" Committee shall be appointed by the Institute Committee to arrange for the celebration of "Tech Night."

Section 8. Such other committees as may be found necessary shall be appointed from time to time.

## ARTICLE V.

### Duties of Officers and Committees.

Section 1. It shall be the duty of the President to preside at all meetings of the Executive Committee. It shall be his further duty to countersign all checks issued by the Institute Committee.

Section 2. The Vice-President shall assume the duties of the President in the absence of the latter.

Section 3. The Secretary shall keep all records of the Institute Committee and shall send notices to all members of the committee prior to each meeting.

Section 4. The Treasurer shall receive and have custody of all moneys of the Committee and shall disburse all money only upon vote of the Institute Committee. He shall be bonded for such an amount as the Executive Committee deems advisable at the expense of the Institute Committee.

Section 5. The Executive Committee shall receive and consider all matters brought before it by the student body, and shall present to the Institute Committee for



action such matters as are deemed important, together with facts and recommendations pertaining thereto.

The Executive Committee shall hold a regular meeting before every regular meeting of the Institute Committee.

Section 6. It shall be the duty of the Point System Committee to enforce the Point System, which shall be as hereinafter provided for.

It shall be their further duty to keep the records of the Point System, and to report to the Institute Committee at every regular meeting the name of any man having overpoints.

Section 7. The Budget Committee shall investigate all proposed expenditures of the Institute Committee in excess of five dollars, and report through the Executive Committee on the advisability of the same. It shall, at the third regular meeting of the Institute Committee of each Institute year, present a budget of the Institute Committee finances for that year.

Section 8. The Walker Memorial Committee shall have charge of the student administration of the Walker Memorial and shall have the power of appointing any sub-committees it deems necessary, subject to the ratification of the Institute Committee. The Committee shall have published in each issue of "The Tech" a schedule of undergraduate events. It shall maintain in the Walker Memorial a calendar of all undergraduate activities, on a board provided for that purpose.

The Committee shall cause to be posted a list of the names and addresses of the officers of all undergraduate activities, on a board provided for that purpose.

The Committee shall, by consent of the Dean, be authorized to assign all Institute rooms for the use of undergraduate activities, and shall, so far as possible, prevent any activity from holding meetings that would conflict with each other.

It shall be the duty of the Committee to demand of each class or activity a list of coming events; the list to be constantly kept up to date.

The Committee shall have the power of fining any activity which holds a meeting unauthorized by the Committee, the fine to be one dollar (\$1.00) payable to the Treasurer of the Institute Committee. Until such fine is paid, the Committee shall refuse to approve any application made by that society or club or class for reservation of time or room.

Section 9. The Bulletin Board Committee shall have charge and be responsible for the bulletin boards of the undergraduate body. All bulletin boards under the control of the Bulletin Boards Committee are hereby denied outside commercial interests.

They shall enforce any rules made by the Institute Committee, regarding the bulletin boards.

They shall report at every regular meeting of the Institute Committee.

It shall be the duty of the Committee to remove from the bulletin board such posters as do not conform to the standard size of 11 in. x 17 in.

It shall be the duty of the Bulletin Board Committee to receive posters at the option of the activities and to affix thereto the stamp of the Institute Committee stating such posters to be the property of the Institute Committee. Each poster

shall also be numbered and the number registered with a descriptive title.

Once a year or oftener the Bulletin Board Committee shall dispose of such posters by auction sale.

Section 10. The Finance Committee shall hold regular monthly meetings at such dates as they shall themselves choose. Special meetings may be called by the chairman of the Finance Committee.

The Committee shall have the power to insist upon a clear businesslike financial report from every activity before the seventh day of each month, for the month preceding; such report to cover the following items at least:

- Cash on hand at first of last month.
- Expenditures and Liabilities.
- Receipts and Assets.
- Balance on hand at end of month.

The Finance Committee shall have the power to audit the accounts of any activity when it thinks such action is advisable.

If the financial condition of any activity is such that in the opinion of the Finance Committee the activity will not be able to pay any debt incurred, the Committee shall have the power to insist upon some guarantee from the activity that the amount to cover such indebtedness will be raised.

In case any activity does not comply with the above measures the Committee shall refer the action of the activity to the Institute Committee.

Section 11. The Dormitories Committee shall be responsible for the student administration of the dormitories.

Section 12. The duties of the Activities Committee shall be:

1. To make an extensive report each year showing the number of men in activities, the percentage enrollment in activities, the effect of activities on scholastic standing, the activities record of prominent alumni, the advantages of carrying some activity, and the large amount of activities work to be done.

2. To prepare detailed lists and charts showing the organization of various activities, the offices of each and how they are secured, and the duties of such offices.

3. To give all possible publicity to its reports, lists and charts; and

4. To keep in touch with various activities, keep a record of positions open and, by due publicity, endeavor to secure keen competition for these positions.

Section 13. The duties of any special committee appointed by the Institute Committee shall be such as are stated at the time of said appointment.

## ARTICLE VI.

### The Point System.

Section 1. There shall be a Point System with ratings of all offices and membership in the several classes and activities, as follows: (Here a list of the ratings, which may be found in the accompanying report of the Point System Committee.)

Section 2. No man shall be allowed to carry more than ten points except that a man may be in athletics or be a member of the musical clubs and hold one other office even though the total exceeds ten points.

Section 3. The exception in Section 2 shall not apply to managers or assistant managers of athletic teams.

Section 4. There shall be no commutation of points except by unanimous vote of the Institute Committee.

Section 5. Any student placed on probation by the Faculty is, during his probation, ineligible for any activity, and is required to withdraw from any activity with which he is associated.

## ARTICLE VII.

### Meetings.

Section 1. The Institute Committee shall hold regular meetings every two weeks throughout the school year.

Section 2. Special meetings may be called at any time by the President or the Executive Committee. After three days, the President shall call a meeting of the Institute Committee, upon written request of ten members.

Section 3. The order of business for Institute Committee meetings shall be as follows:

1. Roll Call.
2. Reading of minutes of previous meeting.
3. Special business.
4. Reports of Standing Committee.
5. Reports of Special Committees.
6. Old business.
7. New business.

Section 4. "Roberts' Rules of Order" shall cover all procedures of this Committee except those covered by the Constitution and By-Laws.

**ARTICLE VIII.****Quorum.**

Section 1. A quorum necessary to transact any and all business of the Institute Committee shall consist of twelve men.

Section 2. No meeting shall begin or continue unless at least a quorum is present.

**ARTICLE IX.****Dues.**

Section 1. The dues for representation on the Institute Committee shall be two dollars a year for representation and shall be payable during the first five weeks of the school year.

Section 2. Any representative whose dues are not paid by the second regular meeting each year of the Institute Committee shall automatically lose all vote and voice in the proceedings of the Committee,—such loss to continue only until his dues are paid.

Section 3. The names of all activities delinquent in the matter of dues, shall be published daily in "The Tech" until such dues are paid.

**ARTICLE X.****Lateness and Absence at Meetings.**

Section 1. No fines shall be levied for lateness or absence of this Committee.

Section 2. The names of all members absent or late shall be published in the next issue of "The Tech" after the meeting at which such lateness or absence occurs.

Section 3. If the full official representation of any activity is not present at two consecutive regular meetings of the Institute Committee, that activity shall forfeit its right to representation on the Committee, which representation shall not be al-

lowed until the Institute Committee has been in receipt of a formal petition from the activity in question and has passed on the same in conjunction with the requirements for admission as stated in the Constitution.

## ARTICLE XI.

### Requirements for Institute Committee Representation.

Section 1. The Committee recommends that, for the purpose of consideration, all undergraduate organizations applying for representation shall be classified either as an activity or a society. Activities shall be those organizations whose membership is determined by competition open to the entire undergraduate body, or by electoral committee election. All other organizations shall be classified as societies.

Section 2. It shall be required that an activity or society applying for representation on the Institute Committee present proof that it has been in existence for three consecutive terms.

Section 3. Activities applying for representation may be admitted to the Institute Committee provided they fulfill the prerequisite time requirement, and meet one or more of the following standards:

1. Financial Standard. The activity must show that a minimum of one hundred men entered in competition for positions on the activity during one Institute term.

3. Tradition Standard. The activity must have traditions which, in the estimate of the Institute Committee, render it worthy of representation. The vote of two-thirds of the members of the Institute Committee shall be necessary to admit an organization under this standard.

Section 4. Societies applying for representation on the Institute Committee may be admitted provided they fulfill the prerequisite time requirement, and one of the following requirements:

1. Membership Requirement. The society must present proof that its organization includes fifty active members. The society must present proof that its membership is open either to all undergraduate students or all members of an Institute course.

2. Service Requirement. The society must present proof to the Institute Committee that it has been and is of service to the Massachusetts Institute of Technology in one of the following lines:

- a. Service to undergraduates.
- b. Dissemination of technical knowledge.

The Institute Committee must decide by the vote of two-thirds of its members whether the service is of sufficient value to render the organization worthy of representation.

## ARTICLE XII.

### Changes in By-Laws.

Section 1. These By-Laws shall not be changed in any way so as to conflict with the Constitution of the Massachusetts Institute of Technology Undergraduate Association.

Section 2. Proper changes in these By-Laws may be made by two-thirds vote of the Institute Committee at any meeting of that body.



## POINT SYSTEM

The Point System is an institution which aims to prevent a student from carrying too much outside work to the detriment of his studies, and enables more men to take part in student activities. Every office and activity is assigned a definite number of points, and no man may carry more than a total of ten points, except in the case of athletics, or the musical clubs, when he may carry any one other office, even though the two total more than ten points.

The system was put into operation by the Institute Committee in the fall of 1908 and is enforced by one of its standing committees.

The ratings of the Point System are as follows:

**The Classes**

President:	
Senior .....	10
Junior .....	9
Sophomore .....	7
Freshman .....	6
Vice-President .....	1
Secretary .....	3
Treasurer .....	5
Institute Committee.....	5
Executive Committee.....	1

**Tech Show**

General Manager.....	10
Business Manager.....	9
Assistant Business Manager.....	7
Candidates and 2nd Ass't Bus. Mgr..	5
Advertising Manager.....	9
Assistant Advertising Manager.....	6
Candidates and 2nd Ass't Adv. Mgr..	4
Stage Manager .....	9
Ass't Stage Mgr. (Second term).....	7
Candidates and 2nd Ass't. Stage Mgr..	5
Stage Director .....	8

Treasurer .....	9
Principals .....	6
Chorus .....	5
<b>Technique</b>	
Editor-in-Chief .....	10
Business Manager .....	9
Board, except Ass't Business Mgrs. and Art Editors .....	8
Ass't Business Managers.....	6
Ass't Art Editors.....	6
<b>The Tech</b>	
General Manager.....	10
Editor-in-Chief .....	9
Managing Editor .....	9
Treasurer .....	9
Assistant Treasurer .....	5
Advertising Manager .....	8
Circulation Manager .....	8
News Board.....	7
Assistants' News Board.....	6
Business Board .....	6
Membership and Candidates Editorial Staff .....	5
Members and Candidates Business Staff .....	5
<b>T. C. A.</b>	
President .....	7
Vice-President .....	1
Treasurer .....	4
<b>The Voo Doo</b>	
Editor-in-Chief .....	9
Managing Editor .....	8
Editors .....	
Assistant Manager Editor.....	5
Business Manager .....	8
Publicity Manager .....	7
Advertising Manager .....	6
Circulation Manager .....	6
Treasurer .....	6
Art Editor .....	5

Staff Photographer .....	5
Members Business Staff.....	4
Members Editorial Staff.....	3
<b>M. I. T. A. A.</b>	
President .....	3
(If Captain of Track Team).....	10
Vice-President .....	1
Secretary .....	1
Members .....	3
Members Advisory Council.....	6
<b>Track Team:</b>	
Captain .....	6
Manager .....	9
Manager (if on Advisory Council)..	10
Assistant Manager .....	6
Candidates and 2nd Ass't Mgr.....	5
Members and Candidates.....	5
<b>Cross Country Team:</b>	
Members and Candidates.....	5
<b>Wrestling Team:</b>	
Manager .....	6
Assistant Manager (also Candidates for).....	5
Members and Candidates.....	5
<b>Hockey Team:</b>	
Manager .....	6
Assistant Manager .....	5
Members and Candidates.....	5
<b>Crew:</b>	
Manager .....	5
1st Assistant Manager.....	3
2nd Assistant Manager.....	2
<b>Swimming Team:</b>	
Manager .....	5
Assistant Manager .....	2
Members and Candidates.....	5
<b>Gym. Team:</b>	
Manager .....	2
Assistant Manager .....	1
Members and Candidates.....	5

<b>Tennis Team:</b>	
Manager .....	2
Members .....	2
<b>Class Teams:</b>	
Managers .....	5
Members .....	3
<b>M. I. T. Orchestra</b>	
Manager .....	7
Conductor .....	6
Members (first term) .....	5
Members (second term).....	4
<b>Musical Clubs</b>	
General Manager .....	10
Assistant General Manager.....	6
Candidates for Ass't General Manager	5
Leaders .....	6
Members (first term).....	5
Members (second term).....	4
<b>Institute Committee</b>	
Treasurer .....	9
Secretary .....	8
Members .....	5
Executive Committee .....	7
<b>Union Committee:</b>	
Chairman .....	8
Members .....	5
<b>Finance Committee:</b>	
Chairman .....	7
Secretary .....	4
<b>Dormitory Committee:</b>	
Chairman .....	5
Members .....	1
Other Committees .....	1
<b>Professional Societies</b>	
President .....	3
(If represented on Institute Com.)	6
Vice-President .....	1
Secretary .....	2
Treasurer .....	2
Standing Committees .....	1

**Club and Non-Professional Societies****Officers' Club:**

President .....	6
Vice-President .....	1
Secretary-Treasurer .....	2

**All Others:**

President .....	2
Secretary-Treasurer .....	1
Standing Committees .....	7

**Junior Prom Committee..... 7**

**All Other Committees..... 1**

A man, being a member of the Institute Committee by virtue of some other office which he holds, shall have only the points attached to the office, provided they exceed or equal five (5); otherwise he shall have the five points only attached to the Institute Committee membership.

The captaincy of any team adds one (1) point to the membership rating for that team.

The Stage Director or Stage Manager of Tech Show may take part in the show (either cast or chorus) without additional points.

## I. C. A. A. A. RECORDS

Event	Record	Holder	College
100-yard dash.....	9 4-5 s.....	B. J. Wefers....	Georgetown
		R. C. Craige....	Michigan
220-yard dash.....	21 1-5 s.....	B. J. Wefers....	Georgetown
		R. C. Craige....	Michigan
		D. F. Lippincott	Pennsylvania
440-yard run.....	47 2-5 s.....	J. E. Meredith..	Pennsylvania
880-yard run.....	1 m. 53 s.....	J. E. Meredith..	Pennsylvania
1-mile run.....	4 m. 14 2-5 s.....	J. P. Jones....	Cornell
2-mile run.....	9 m. 22 2-5 s.....	I. C. Dresser....	Cornell
120-yard hurdles....	15 s.....	F. S. Murray....	Leland Stanford
220-yard hurdles....	23 3-5 s.....	A. C. Kraenzlein	Pennsylvania
		J. I. Wendell...	Wesleyan
Shot put.....	48 ft. 10 3-4 in....	R. L. Beattie....	Columbia
Hammer throw.....	165 ft. 3-4 in....	H. P. Bailey....	Maine
High jump.....	6 ft. 4 1-2 in....	W. M. Oler.....	Yale
Broad jump.....	24 ft. 4 1-2 in....	A. C. Kraenzlein	Pennsylvania
Pole vault.....	13 ft. 1 in.....	R. A. Gardner...	Yale

## N. E. I. A. A. RECORDS

Event	Record	Holder	College
100-yard dash.....	9 4-5 s.....	A. B. Kelly.....	Holy Cross
220-yard dash.....	22 2-5 s.....	A. B. Kelly.....	Holy Cross
440-yard run.....	49 3-5 s.....	J. D. Lester.....	Williams
880-yard run.....	1 m. 55 3-5 s.....	N. S. Taber.....	Brown
1-mile run.....	4 m. 18 3-5 s.....	N. S. Taber.....	Brown
2-mile run.....	9 m. 35 3-5 s.....	R. W. Atwater..	Tufts
120-yard hurdles....	15 2-5 s.....	A. B. Shaw.....	Dartmouth
220-yard hurdles....	24 2-5 s.....	W. A. Savage...	Bowdoin
Shot put.....	47 ft. 10 1-2 in.....	L. A. Whitney..	Dartmouth
Hammer throw.....	164 ft. 8 1-4 in.....	H. P. Bailey....	Maine
Discus throw.....	135 ft. 5 9-10 in.....	L. A. Whitney..	Dartmouth
High jump.....	6 ft. 7-16 in.....	P. W. Dalrymple	Technology
		H. B. Enright...	Dartmouth
Broad jump.....	23 ft. 10 1-2 in.....	H. T. Worthing'n	Dartmouth
Pole vault.....	12 ft. 6 1-4 in.....	M. S. Wright...	Dartmouth

## M. I. T. A. A. RECORDS

Event	Record	Holder	Year
100-yard dash.....	10 1-5 s.....	R. S. Franklin..	1903
		C. W. Loomis...	1915
220-yard dash.....	22 s.....	C. W. Gram.....	1909
440-yard run.....	50 4-5 s.....	T. H. Guething..	1914
		C. T. Guething..	1916
880-yard run.....	1 m. 58 s.....	P. D. White....	1911
1-mile run.....	4 m. 24 4-5 s.....	R. G. Brown....	1915
2-mile run.....	9 m. 35 4-5 s.....	F. F. Cook.....	1915
120-yard hurdles....	16 2-5 s.....	F. L. Ovington..	1904
220-yard hurdles....	24 4-5 s.....	G. P. Burch....	1899
Shot put.....	42 ft. 1-4 in.....	F. H. Leslie....	1914
Hammer throw.....	138 ft. 6 in.....	Dandrow .....	1919
Discus throw.....	121 ft. 5 1-8 in.....	O. V. Chamberl'n	1911
High jump.....	6 ft. 1 1-2 in.....	C. D. Heywood..	1893
Broad jump.....	22 ft. 7 1-4.....	C. S. Reed.....	1916
Pole vault.....	12 ft. 0 in.....	Nagle .....	1919



---

**ASSIGNMENTS**

---

Head Line Text - Copy to the Editor

## ASSIGNMENTS

Year	Author	Title	Number
1909	R. S. Peckham	.....	50
1910	H. W. Loomis	.....	51
1911	W. Crane	.....	52
1912	H. W. Loomis	.....	53
1913	H. W. Loomis	.....	54
1914	H. W. Loomis	.....	55
1915	H. W. Loomis	.....	56
1916	H. W. Loomis	.....	57
1917	H. W. Loomis	.....	58
1918	H. W. Loomis	.....	59
1919	H. W. Loomis	.....	60

**Read these footnotes—they're in rhyme,**

**ASSIGNMENTS**

---

They'll save you money every time.

**ASSIGNMENTS**

## ASSIGNMENTS

---

Is the one best way to come out on top.

**ASSIGNMENTS**

**ASSIGNMENTS**

**ASSIGNMENTS**



## ASSIGNMENTS

HARVARD CO-OPERATIVE  
SOCIETY

The Students' Own Store

By joining the Society you become a stockholder for yourself, just as absolutely as if you rented a store, put in a stock of goods and employed salespeople.

If you did start such a store wouldn't it be foolish to patronize any other store?

No matter what the selling price is, the ultimate cost to you is the best wholesale cost obtainable by large buying power, plus carefully managed and minimized selling cost. Everything else comes back to you in dividends.

Can you beat it? If this dividend is of no importance to you, you still help to make the store a success for the fellow who can't afford such luxuries as building up a business for anyone but himself.

**For any kind of out-door sport.**

# Technology Branch,

## HARVARD CO-OPERATIVE SOCIETY

### The Students' Own Store

By joining the Society you become a storekeeper for yourself, just as absolutely as if you rented a store, put in a stock of goods and employed salespeople.

If you did start such a store wouldn't it be foolish to patronize any other store?

No matter what the selling price is, the ultimate cost to you is the best wholesale cost obtainable by large buying power, plus carefully managed and minimized selling cost. Everything else comes back to you in dividends.

Can you beat it? If this dividend is of no importance to you, you still help to make the store a success for the fellow who can't afford such luxuries as building up a business for anyone but himself.

**FROM:**       **Manager Co-operative  
                  Society.**

**TO:**           **Members of M. I. T.**

**SUBJECT:** **Technology Barber Shop.**

May I call your attention to a new Barber Shop just opened by the Tech Branch of the Harvard Co-operative Society in the Tech Block, at 96 Massachusetts Avenue, opposite the Institute Buildings.

Barbers, who for some time have had Technology men for customers, are in this first-class, sanitary barber shop.

I venture to invite your patronage.

**G. E. COLE**

*Managing Director*

## ASSIGNMENTS

FROM  
Technology Branch,  
Harvard Co-operative  
Society.

HARVARD CO-OPERATIVE  
SOCIETY  
Members of M. I. T. TO:

SUBJECT: Technology Barber Shop.  
The new Barber Shop

May I call your attention to  
the new Barber Shop just opened  
by the Tech Branch of the  
Harvard Co-operative Society  
in the Tech Block at 25 Mass-  
achusetts Avenue, opposite the  
Institute Building.

Barbers, who for some time  
have had Technology men for  
customers, are in this class  
naturally barber shop.  
I venture to invite your par-

sonage. If it had any  
the way of contributing to  
a good cause, we would be glad  
to have you. The  
Managing Director

Tech jewelry we all should wear,

ASSIGNMENTS

**APPOINTMENTS**

**APPOINTMENTS**

**APPOINTMENTS**

---

A Co-op order is as good as gold



**APPOINTMENTS**

**APPOINTMENTS**

---

**Pennants, banners, and pillow covers,**

**APPOINTMENTS**

**APPOINTMENTS**

**APPOINTMENTS**

---

**It's A-1 class you've all agreed.**

### APPOINTMENTS

Year	Name	Address	Phone
1906	H. A. Franklin	1012 N. 1st St.	1012
1910	G. W. Egan	1012 N. 1st St.	1012
1909	L. W. Dewey	1012 N. 1st St.	1012
1916	E. H. Gillingham	1012 N. 1st St.	1012
1918	C. T. Gillingham	1012 N. 1st St.	1012
1917	P. C. White	1012 N. 1st St.	1012
1918	E. C. White	1012 N. 1st St.	1012
1915	E. C. White	1012 N. 1st St.	1012
1917	F. C. White	1012 N. 1st St.	1012
1917	C. P. White	1012 N. 1st St.	1012
1918	E. C. White	1012 N. 1st St.	1012
1911	O. V. Chamberlain	1012 N. 1st St.	1012
1913	C. L. Burford	1012 N. 1st St.	1012
1918	C. J. Egan	1012 N. 1st St.	1012
1919	Noble	1012 N. 1st St.	1012

**APPOINTMENTS**

---

**You'll get yours when the school year ends.**

**MEMORANDA**

---

Try the Co-op 'cross the Avenue,



## MEMORANDA

---

If autos and trucks will let you thru.

**MEMORANDA**

## MEMORANDA

## MEMORANDA

Treasurer  
 Principals  
 Clubs

Committees

Editor-in-Chief  
 Business Manager  
 Board (except Ass't Business Manager  
 and Art Editors)  
 Ass't Business Manager  
 Ass't Art Editor

The Staff

General Managers  
 Editor-in-Chief  
 Managing Editor  
 Features  
 Assistant Treasurer  
 Advertising Manager  
 Circulation Manager  
 News Board  
 Assistant News Editor  
 Business Board  
 Business and Circulation Editors  
 Staff

The Office

Editor-in-Chief  
 The President  
 Treasurer

The The Office

Editor-in-Chief  
 Managing Editor  
 Staff  
 Assistant Business Manager  
 Business and Circulation Editors  
 Staff

## MEMORANDA

---

Also fags—all the types.

**MEMORANDA**

**MEMORANDA**

**MEMORANDA**

---

**The one year-round activity**



**MEMORANDA**

**ASSIGNMENTS**

---

is the copy of this list. In the case of any change in the list, the copy of this list will be the copy of this list.

**ASSIGNMENTS**

**ASSIGNMENTS**

## ASSIGNMENTS

Copyright 1914 by the Massachusetts Institute of Technology  
 Association of American Engineers  
 Cambridge, Mass.

The price of this book is \$1.00. It is sold at a discount of 25% to members of the Association of American Engineers. The price of this book is \$1.00. It is sold at a discount of 25% to members of the Association of American Engineers.

It is not customary to assign work to students in the first year of a course. The assignments in this book are intended to be used as a guide for the student in the selection of his work. The assignments are intended to be used as a guide for the student in the selection of his work.

### ASSIGNMENTS

#### FIRST YEAR

1. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.

#### SECOND YEAR

1. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 2. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 3. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.

#### THIRD YEAR

1. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 2. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 3. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.

#### FOURTH YEAR

1. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 2. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 3. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.

#### FIFTH YEAR

1. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 2. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.  
 3. Design a machine to lift a weight of 1000 lbs. to a height of 100 ft. in 10 seconds.

## Section 6. ASSIGNMENTS

An Activities Committee, consisting of three men appointed by the Executive Committee, shall be in the jurisdiction of the Institute Committee. The chairman of this committee shall be ex-officio a member of the Institute Committee.

Section 7. A "Tech Night" Committee shall be appointed by the Institute Committee to arrange for the celebration of "Tech Night."

Section 8. Such other committees as may be found necessary shall be appointed from time to time.

## ARTICLE V

### Duties of Officers and Committees.

Section 1. It shall be the duty of the President to preside at all meetings of the Executive Committee. It shall be his particular duty to convene all checks issued by the Institute Committee.

Section 2. The Vice President shall assume the duties of the President in the absence of the latter.

Section 3. The Secretary shall keep all records of the Executive Committee and shall send copies to all members of the committee prior to each meeting.

Section 4. The Treasurer shall receive and have custody of all moneys of the Committee and shall disburse all money only upon vote of the Institute Committee. He shall be bonded for such an amount as the Executive Committee deems advisable in the opinion of the Institute Committee.

Section 5. The Executive Committee shall receive and consider all matters brought before it by the student body, and shall advise by the Institute Committee for

## APPROVED ROOMING HOUSES

Compiled by the Technology Christian  
Association, Walker Memorial,  
Cambridge, Mass.

The prices depend largely on the character, service, and location of the room, but those here quoted show the general run of prices.

It is not customary to reserve rooms in advance, since rooms in the same locality differ widely as to quality. We suggest that the students arrive in Boston the day preceding registration day, and visit the rooms personally before making the selection.

### BOSTON

#### Back Bay

(Thirty minutes' walk, or fifteen minutes  
on the street car.)

#### Boylston Street

1079	Miss C. E. Dunklee.....	\$5.00 to	\$7.00
1088	Ross H. Maynard.....	4.00 to	6.00
1091	Mary A. Pillsbury.....	3.00	

#### Gainsboro Street

69	Bessie E. Goodwin.....	\$4.00 to	\$6.00
73	Miss M. Millar.....	2.50 to	5.00
73	Mrs. M. A. Baker.....	3.00 to	4.00
78	Mrs. Harvey .....	5.00	
80	Mrs. C. E. Atwood.....	8.00	
83	G. E. Bent.....	3.50	
84	Mrs. M. G. Campbell....	5.00	
96	Miss A. G. Thomson....	4.00 to	6.00
97	Annie M. Salling.....	5.00 to	7.00
101	Mrs. Agnes Drew.....	4.00 to	5.00
105	Edward M. Stanyan....	3.50 to	6.00
107	Mrs. L. A. Whittier....	3.00 to	6.00
115	Mrs. H. R. Brackett....	3.00 to	5.00

**Marlboro Street**

400	Mrs. W. M. Browne.....		
421	Dr. Arthur W. Wyse....	\$6.00 to	\$10.00
427	Mrs. E. E. Everett.....	5.00 to	7.00

**Newbury Street**

11	Mrs. Aug'a E. Danforth	1.75 to	\$9.00
12	Mrs. Florence E. Coffin.	4.00 to	12.00
31	Homer McDonough ....		
85	Mrs. J. C. McKenna....		
95	Mrs. E. M. Keyes.....	4.00 to	12.00
121	Mrs. A. S. Shoemaker..		
137	Mrs. H. H. Harrison...	5.00 to	11.00
211	Miss George .....		
212	Mrs. C. H. Gilbert.....	4.00 to	8.00
217	Mrs. Telfer .....	6.00 to	11.00
218	Mrs. Selina Ball .....	4.00 to	6.00
225	Mrs. Thomas Grady....	3.00 to	9.00
265	Mrs. C. H. Robinson....	8.00 to	12.00
285	Miss Elizabeth Ryan...	3.50 to	4.00
290	Mrs. Walter H. Rice....	3.50 to	4.50
301	The Colonial House....		
308	Mrs. Kate J. Jewell....	8.50 to	12.50
376	Mrs. S. Andrews.....		
424	Mrs. Mary M. Tyrell...	2.00 to	3.00
428	Mrs. M. A. Lynch.....	3.00 to	9.00
546	Mrs. J. R. Parker.....	2.50 to	6.00
562	Mrs. Warner .....	3.00	

**St. James Avenue**

82	Mrs. H. W. Noble.....		
86	Mrs. Mary S. Dee.....	\$3.00 to	\$5.00
100	Mrs. L. B. Gardner....	3.00 to	8.00

**St. Stephen's Street**

52	Harriet M. Higgins ....	\$3.00 to	\$6.00
53	Mrs. Ella M. Courser...	2.50 to	7.00
47	Ellen Young .....	3.50 to	8.00
72	Mrs. J. A. Manion.....	3.00 to	6.00
72	Mrs. B. F. Jones.....	3.00 to	6.00

**CAMBRIDGE****(Central Square District)**

(Twenty minutes' walk from the Institute,  
or five minutes' ride on the street car.)



**Austin Street**

149 Mrs. Robert Dickson...\$2.00 to \$4.50

**Bigelow Street**

10 Mrs. J. W. Trakey.....\$2.00

28 Mrs. Minnie S. Bennett. 2.25

38 Mrs. J. G. Ryan..... 2.50 to \$4.00

**Broadway**

320 Mrs. A. C. Savage.....\$2.00 to \$4.00

393 Mrs. C. B. Hanson..... 2.50 to 4.00

401 Mrs. Margaret McEvay. 4.00

467 Charles McHugh ..... 3.00

473 Mrs. L. M. Clark..... 3.50

**Centre Street**

7 Mrs. H. W. Huff.....\$5.00 to \$6.00

7½ Mrs. M. A. Boyden.... 3.00

14 H. R. Chase ..... 5.00 to 7.00

22 Mrs. S. J. Birtwell..... 4.00

**Charles River Road**

311 Mrs. C. M. Pomeroy....

**Clinton Street**

2 The Misses Fosdick...\$3.00 to \$3.50

24 Mrs. H. J. McLeod..... 1.75 to 7.00

**Dana Street**

67 Mrs. M. W. Thayer.....\$3.00 to \$5.00

**Dewolf Street**

5 Miss M. Phelan.....\$1.75 to \$2.75

**Ellery Street**

8 Mrs. E. B. O'Brien.....\$2.00 to \$4.00

15 Miss M. B. Blair..... 2.50 to 6.00

54 Mrs. R. A. Andrews.... 2.00 to 2.50

**Frost Terrace**

1 Mrs. E. B. Tibbets.....

**Hammond Street**

80 Mrs. L. G. Nickerson...\$2.00 to \$2.50

**Hancock Street**

104 Mrs. G. F. Griggs.....\$4.00

122 Mrs. L. A. Bacon..... 4.00 to \$5.00

136 Mrs. A. Alexander..... 2.50 to 3.00

269	Mrs. F. A. Mosher.....	\$4.00 to	\$6.00
284	Mrs. Grace Wilson.....	3.00 to	5.00
307	Mrs. N. Douglas.....	2.00 to	4.00
315	Mrs. C. N. Wilcox.....		
326	Mrs. H. N. Sparrow.....	2.50 to	5.00
342	Mrs. G. F. Uring.....	2.00 to	6.00
352	Mrs. A. A. Estabrook.....		
356a	Mrs. Jennison.....	2.50 to	3.50
64	Miss S. J. Gunnison.....	\$3.50 to	\$5.00
104a	Mrs. Catharine O'Donnell	3.00	
15	Mrs. N. M. Dodge.....	\$2.00 to	\$4.00
16	Mrs. Mary R. Howard.....	2.00 to	5.00
<b>Lee Street</b>			
22	Mrs. Richard Watts.....	\$2.00 to	\$3.50
22	Mrs. D. T. Walters.....	2.25 to	5.00
33	Mrs. Belle W. Wallis.....	4.00 to	6.00
44	Mrs. P. B. Reynolds.....	3.50	
59	Mrs. H. McLean.....	2.50	
66	Mrs. Wetherell.....	4.00 to	6.00
69	Mrs. A. P. Farham.....	3.00	
128	Mrs. Ida J. Holmes.....	2.50 to	3.50
131	Mrs. Alice G. Cooper.....		
140	Mrs. W. I. Jackson.....	3.00 to	4.00
140	Mr. E. T. Clark.....	3.00	
147	Mrs. H. A. Cartwright.....	3.00 to	3.50
<b>Massachusetts Avenue</b>			
46	Mrs. E. A. Maynard.....	\$5.00 to	\$6.00
46	Mrs. Lucy M. Ray.....	3.00 to	7.00
46	Mrs. Helena Aker.....		
48	Mr. W. A. Merrill.....	5.00 to	8.00
929	Mrs. W. H. Gray.....	2.00 to	7.50
930	Lewis L. Bryant.....	2.00 to	4.00
947	Mrs. W. S. Russell.....	2.75 to	3.00
953	Mrs. Vina Carl.....	3.00 to	5.00
957	Mrs. Mary Connell.....	2.00 to	6.00
973	Mrs. Mary M. Collins.....	2.00 to	3.00
1010	Mrs. W. J. Armstrong.....	4.00	

1039	Mrs. A. F. Towle.....	3.00 to	5.00
1039	Avery L. Rand.....	5.00	
1039	Mrs. B. Phippen.....	4.00 to	5.00

## Pleasant Street

19	Mrs. E. D. Stuber.....		
31	Mrs. S. F. Norris.....	\$2.00 to	\$3.00

## Trowbridge Street

11	Mrs. Annie Clark .....	\$3.00 to	\$6.00
25	Mrs. M. Mansell.....	2.50 to	7.00
33	Mrs. G. S. Eddy.....	2.00 to	6.00

## Williams Street

28	Mrs. Sheldon .....		
28	Mrs. J. M. Dawson.....	\$3.00 to	\$4.00
28	Mrs. Emma E. Dickman	2.50 to	5.00
34	Mrs. H. M. Gaskill.....		
36	Mrs. D. A. Snow.....	2.00 to	3.00

## Putnam Avenue

432	Mrs. M. M. Guggenheim	\$3.50	
-----	-----------------------	--------	--



Fine  
Stationery  
High Grade  
Engraving  
Printing

Commencement and Class Day Invitations, Wedding Invitations and Announcements, Reception and Visiting Cards, Monograms, Address Dies and Fraternity Stationery, Menus, Programs and Dance Orders.

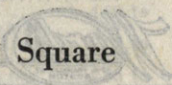
Stationery Supplies, Fountain Pens,  
Leather Specialties and  
Brass Goods

57-61 Franklin St., Boston, Mass.

The Nearest  
Printing Plant to  
Technology  
is that of  
**THE MURRAY**  
**PRINTING COMPANY**

AT

**Kendall Square**



*We can handle anything  
that ought to be  
printed*

J. B. HUNTER COMPANY  
Hardware  
BURTON-FURBER  
COAL CO.

Sole Agents

Crozer-Pocahontas Coal

Selected Grades of  
ANTHRACITE COAL

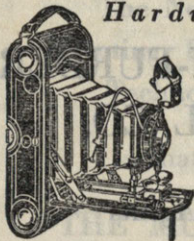
Highest Cash Prices Paid for Your  
Main Office, 50 Congress Street

Wharf, 120 Border Street

EAST BOSTON

# J. B. HUNTER COMPANY

## *Hardware*



Autographic  
Vest Pocket  
Kodaks, \$8.00

Fountain Pens,  
with Ink Tabs,  
\$3.00

Wrist Watches,  
with protector,  
\$5.50

Army Knives  
\$2.50 to \$3.50

Safety Razor Outfits, \$1.00 to \$5.00

60 Summer St., Boston

# OLD CLOTHES WANTED

BY

# MAX KEEZER

Highest Cash Prices Paid for Your  
Cast-off Clothing

*Will call at your room day or evening  
at your pleasure*

1236 Massachusetts Avenue  
CAMBRIDGE

Telephones: 302, 2936. If one is busy  
call the other

## **Frost's Hand Laundry**

### **Fine Laundry Work a Specialty**

One Day Service if You Must Have It. We take Dry Cleansing and do all length gloves for 10c. per pair.

**OUR COLLAR AND SHIRT WORK  
IS THE BEST OBTAINABLE  
WHY DELAY?            SEND NOW!**

**195 MASSACHUSETTS AVENUE  
BOSTON, MASS.**

Telephone, 1625 Back Bay  
129 Brighton Ave., Tel. 3450 Brighton

Telephone Main 5571

## **Charles H. Johnson**

**M. I. T. '05**

**176 FEDERAL STREET, BOSTON**

### **New England Mutual Life Insurance Co.**

**BOSTON, MASS.**





**E. D. ABBOTT CO.**  
(INCORPORATED)



**PRINTERS**  
**STATIONERS**

**Fraternity Work a Specialty**



**181 Massachusetts Avenue**  
**BOSTON**  
**PHONE, 3546 BACK BAY**



## On the Write Road

The signs of writing comfort and satisfaction read—  
Moore's won't leak.

The Moore has more than one point of merit—

### The pen point

No better has ever been made.

### The non-leakable construction

The only pen shipped by mail and express to the dealer—filled with ink.

### The ready-to-write feature

Pen is always wet with ink—no shaking to make it start.

Ask your dealer to demonstrate a Moore's. Make comparisons but don't accept substitutes.

---

**THE MOORE PEN COMPANY**

168 Devonshire Street      Boston, Mass.



**WALTON LUNCH CO.****CAMBRIDGE**

78 Massachusetts Avenue

**BOSTON**

424 Tremont Street

7 School Street

44 Summer Street

629 Washington Street

431 Boylston Street

30 Haymarket Square

42 Federal Street

139 Congress Street

242 Tremont Street

1083 Washington Street

8 Tremont Row

332 Massachusetts Avenue

**ALLSTON**

1215 Commonwealth Avenue

**Wm. Bertsch & Co.**

Manufacturers of

**Leather Specialties for  
Advertising****Y. M. C. A. Handbooks****N. E. Cor. Sixth and Arch Streets****Philadelphia**



**GEORGE W. DUNLEAVY****UP-TO-DATE BARBER SHOP****Nine American Barbers****Special Attention to Tech Students  
Razors Honed and Concaved****636-A Mass. Ave. Central Square  
CAMBRIDGE****COPLEY REPERTORY THEATRE****FOURTH SEASON**

of the

**HENRY JEWETT PLAYERS****Presenting Standard Plays by  
Leading Authors****Evenings at 8.10 Matinees at 2.10****Prices 25c. to \$1.50****Popular Matinees Tuesdays and  
Thursdays****ENTIRE ORCHESTRA \$1.00****Seats reserved  
by 'phone****Telephone  
Back Bay 5518****Open Saturday Evenings Telephone Connection****HENRY H. SAVAGE & SONS****Musical Instruments****BOUGHT, SOLD AND EXCHANGED****Diamonds, Watches, Clocks and Jewelry. All kinds  
of Repairing Neatly Done and Warranted****166 Hanover Street****Boston, Mass.**

# DOWN TOWN RENDEZVOUS

For T. C. A. Men

Your membership ticket  
entitles to use of

**LIBRARY** over 14,000 volumes

BOOKS to Assist You in Various Ways  
130 Magazines and Periodicals

## RECEPTION ROOM

A Place to Meet Your Friends

Small Extra Charge for

## GYMNASIUM

Day and Evening Classes

Gymnastic Dances—Music

**THE BOSTON  
YOUNG MEN'S  
CHRISTIAN UNION**

48 Boylston Street

## ADDRESSES

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City



# Starrett Tools

have measured the accuracy of machine shop work throughout the world for almost 40 years. During that time tools have been added to the line as they have demonstrated their ability to render better service to the machinist than was offered by existing devices. Today the Starrett Catalog No. 21 lists 2,100 tools of different styles and sizes. A copy will be sent free on request.

## THE L. S. STARRETT CO.

*The World's Greatest Toolmakers*

**Manufacturers of Hack Saws  
Unexcelled**

Athol,



Mass.

42-942



**Walker  
Memorial  
Dining  
Rooms**

# Massachusetts Institute of Technology

RICHARD C. MACLAURIN, Pres.

---

Aims to give thorough instruction in *Civil, Mechanical, Chemical, Mining, Electrical, and Sanitary Engineering*; in *Chemistry, Electrochemistry, Architecture, Physics, Biology and Public Health, Geology, and Naval Architecture.*

---

For general information address

**Allyne L. Merrill,**  
*Secretary of the Faculty*  
CAMBRIDGE, MASS.



**Riverbank Court  
Hotel  
Cambridge, Mass.**

**A. J. WILKINSON & CO.**

**HARDWARE**

Machinists' and Manufacturers' Supplies  
Mechanics' Tools  
Machinery  
Electrical Goods  
Automobile Accessories

**180-184 and 188 Washington St.  
BOSTON, MASS.**

Telephone—Main 5772.

**CHAUNCY HALL SCHOOL  
553 BOYLSTON STREET  
BOSTON, MASS.**

Devotes itself wholly to preparation  
of students for the Massachusetts  
Institute of Technology.

**FRANKLIN T. KURT** Principal

## ADDRESSES

Name

Street No.

City



Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

*Business Established 1849*

# Macullar Parker Co.

*Clothes for Students*

Correct in fabric, style, and fit. Made  
in our shops on the premises to  
order or ready for immediate

use

---

FINE HABERDASHERY IN GREAT  
VARIETY

*Hat Department*

Soft and Stiff "Stetson's"—the best

# Macullar Parker Co.

400 WASHINGTON ST.

BOSTON

Business Established 1849  
MACGILL'S MARKET CO.  
Groceries for Students

Robert A. Boit & Co.  
INSURANCE



Correct in fabric, style, and fit. Made  
in our shops on the premises to  
order of ready for immediate  
shipment.

40 KILBY STREET  
BOSTON

---

FINE HABERDASHERY IN GREAT  
VARIETY

L. E. Knott Apparatus Co.

Manufacturers of

Scientific Instruments

Soft and stiff "Stetsons"  
Pyrex Glassware

Whatman Filter Paper

Spencer Microscopes

J. T. Baker C. P. Chemicals

Hoskins Electric Furnaces

Fused Silica Ware

400 WASHINGTON ST.  
BOSTON

Antimony Rubber Tubing & Stoppers

79 Amherst St., Cambridge, Mass.

## ADDRESSES

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

**DRAWING  
INSTRUMENTS  
AND  
MATERIAL OF  
ALL KINDS**

---

*Slide Rules  
Blue Prints and Paper*

---

**AGENT FOR  
KEUFFEL & ESSER CO.**

---

**B. L. MAKEPEACE**  
**387 WASHINGTON ST.**  
**BOSTON**





# CALENDAR, 1919-1920

## SEPTEMBER

S	M	T	W	T	F	S
..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	..	..	..	..
..	..	..	..	..	..	..

## OCTOBER

..	..	..	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	..

## JANUARY

..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31
..	..	..	..	..	..	..

## FEBRUARY

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	..	..	..	..	..	..

## MARCH

..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..

## APRIL

..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	..

## NOVEMBER

S	M	T	W	T	F	S
..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	..	..	..	..	..	..

## DECEMBER

..	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31	..	..	..

## MAY

..	..	..	..	..	..	1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31	..	..	..	..	..

## JUNE

..	..	1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	..	..	..

## JULY

..	..	..	..	1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## AUGUST

1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31	..	..	..	..

# TAVERN LUNCH

10 AMES STREET

Next to Dormitories

Acknowledged by all Tech Students as a restaurant with a real home atmosphere. All Foods prepared in our own ovens.

Highly recommended by the Faculty.

Special Announcement:

\$5.75 Meal Ticket for \$5.

## *Whittemore's* *Shoe Polishes*

Quality      Variety

Whatever the Shoe, whatever  
the shade, we make an  
appropriate dressing

**Gymnasium Privileges**  
at the  
**Boston Young Men's  
Christian Association**  
316 Huntington Avenue

**Easy Terms for Non-Resident  
Students**

The finest Gymnasium in Boston. Equipped with modern Lockers and all necessary apparatus for Body Building and Hygienic Work. Superior Bathing facilities, including beautiful Natatorium. Excellent Massage Department, Electric and Steam Baths, Bowling Alleys and Hand Ball Courts.

**SUMMER CAMP**

Lake Winnepesaukee, N. H.

**Educational Department**

Evening Law School

Commerce and Finance

Automobile Schools

**SUNDAY SERVICES AND  
BIBLE CLASSES**

*Prospectus on Application*

**Association Membership, \$2.00  
Annually**

**GEO. W. MEHAFFEY,**  
General Secretary

## ADDRESSES

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

Name

Street No.

City

## RECITATION SCHEDULE—FIRST PERIOD

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9-10							9-10
10-11							10-11
11-12							11-12
12-1							12-1
1-2							1-2
2-3							2-3
3-4							3-4
4-5							4-5

One Day Laundry      One Day Pressing

Tel. Camb. 1755-W

## Tech Men's Shop

(Formerly Tech Tailors)

80 Massachusetts Avenue

CAMBRIDGE, MASS.

**FIRST CLASS TAILORS**

**CIGARS AND TOBACCO**

**MEN'S FURNISHINGS**

## SNAPPY STYLE AND STURDY WEAR

Shoes of Special Leathers and Lasts, designed and constructed for Students' needs, priced conservatively and liberally guaranteed.

**CAMBRIDGE SHOE STORE**

595 Massachusetts Ave.

At Central Subway Station

**CAMBRIDGE**

CAMBRIDGE

# YOUNG MEN'S CHRISTIAN ASSOCIATION

820 MASSACHUSETTS AVENUE

Opposite City Hall

A twelve-minute walk from Technology

**MEMBERSHIP FEES** (including all privileges)

One Year - \$10.00

Six Months - \$7.50

Dormitory Rooms — Bowling Alleys — Hand Ball Courts

T. C. A. Tickets are honored for house privileges.

## HARVARD SWIMMING TANK

60 x 20 feet, Clear, Filtered, Artesian Water

Private Swimming Instruction (thirty-minute periods) \$1.00

6 Lessons, \$5.00

Full information upon request.

**CARROLL L. CHASE, General Secretary.**



## RECITATION SCHEDULE—SECOND PERIOD

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9-10							9-10
10-11							10-11
11-12							11-12
12-1							12-1
1-2							1-2
2-3							2-3
3-4							3-4
4-5							4-5

## RECITATION SCHEDULE—THIRD PERIOD

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
9-10							9-10
10-11							10-11
11-12							11-12
12-1							12-1
1-2							1-2
2-3							2-3
3-4							3-4
4-5							4-5

ESTABLISHED 1818

*Brooks Brothers,*  
**CLOTHING,**  
Gentlemen's Furnishing Goods,

MADISON AVENUE COR. FORTY-FOURTH STREET  
NEW YORK

*Telephone Murray Hill 8800*

This is a complete Establishment  
operated continuously  
for more than One Hundred Years  
under the same name  
and still in the control of the  
Direct Descendants of the Founders

We specialize in the Outfitting  
of Men and Boys from Head to Foot  
with Garments and Accessories  
for Every Requirement of  
Day or Evening Wear  
Dress, Business, Travel or Sport

*Send for Illustrated Catalogue*

Complete Clothing Outfits for Officers  
resuming Civilian Life, as well  
as for those continuing in  
the service

**BOSTON**  
TREMONT COR. BOYLSTON

**NEWPORT**  
220 BELLEVUE AVENUE

