

# THE TECH

VOL. XXXIV. NO. 70.

BOSTON, MASS., WEDNESDAY, DECEMBER 9, 1914.

PRICE THREE CENTS

## MEMORIAL MEETING IN HUNTINGTON HALL

Commemoration Of The Birth-  
day Of William Barton  
Rogers.

A convocation was held last Monday in Huntington Hall in commemoration of the birthday of William Barton Rogers, first president of Technology. The hall was well filled and the meeting was a success from every standpoint. President Maclaurin opened the convocation with a few words in honor of President Rogers and then introduced the speaker, Mr. J. P. Munroe, Secretary of the Corporation, and a student under William Barton Rogers.

He stated that John Harvard, founder of Harvard, left only 750 pounds, while the founder of Yale left but 600 pounds. Neither of the two men, however, took any active part in their institutions. William Barton Rogers, however, took an active part in the founding and establishment of the Massachusetts Institute of Technology.

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## CIVIL ENGINEERS

Prof. Whipple Speaks On Sewage  
Disposal Friday.

The Civil Engineering Society will hold a smoker in the Union on Friday evening at 8 o'clock. Professor Whipple will speak on "Some Interesting Phases of Sewage Disposal." A business meeting will take place before the meeting, in order to elect a member of the Executive Committee, to fill the vacancy caused by the resignation of M. B. Dalton. The question of making members of the Civil Engineering option of Course XV eligible to the Society, will be decided.

## CROSS-COUNTRY MEN

A meeting of the cross-country team to elect the captain for next year will be held at the Gym Thursday at five. The following men are to be present: Benson, Bradley, Brown, Cook, Graff, Harrington, Litchfield, Nye, Wall.

## SOPHOMORE BANQUET

A committee consisting of T. Haviland, chairman, L. Hibbard and D. Tarpley has been appointed to arrange a suitable time and place for the Sophomore Banquet, which will probably be held a short time after Christmas vacation.

## TECH CANDIDATES

A meeting of the candidates for the Circulation, News and Advertising departments of The Tech will be held today in the lower office at 1.30.

## PROFESSOR ROBERT HALLOWELL RICHARDS TENDERED BANQUET

Given in Recognition of Long Connection with the Institute  
—To Be Held This Evening at the Copley-Plaza  
—Painting To Be Presented

About two hundred and fifty "Tech" men represented the Corporation, Faculty and Alumni at the dinner given to Professor Robert Hallowell Richards last Monday evening at the Copley-Plaza in honor of his fifty years' connection with the Institute. The speakers were President Maclaurin, Eben S. Stevens, '68, of the same

gradually accumulating a gallery of portraits of people closely connected with its history. Besides the one of Professor Richards the collection includes paintings of President Rogers, Mrs. Rogers, President Walker, Dr. Walker, after whom the Walker building is named, President Pritchett and Dr. William T. Sedgwick. The



ROBERT HALLOWELL RICHARDS

class as Professor Richards, Professor Charles R. Cross, '70, and Jasper Whiting, '39, president of the Alumni Association.

The feature of the evening was the presentation to the Institute of the painting of Professor Richards, reproduced on this page. Technology is

matter of a painting of Professor Richards was first proposed by Arthur L. Hamilton, '00, of Chicago and Timothy W. Sprague, '37, of Boston. Three hundred alumni from Korea, Japan, Mexico and every state in the Union, contributed the necessary

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"Industry, honesty, loyalty, service—those were the qualities conspicuous in the life of William Barton Rogers, and they are the qualities fundamental to Technology."

JAMES P. MUNROE, '82, AT MONDAY'S CONVOCATION

## MUSICAL CLUBS GIVE CONCERTS THIS WEEK

Play At Brookline This Evening  
—At Wellesley College  
Saturday.

The members of the Combined Musical Clubs will give a concert to night in the Brookline Baptist Church for the benefit of the Christian Endeavor Society. They are to take a Beacon St. car from Copley Square in time to reach the church at 7.5. It

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## RED CROSS RELIEF DAY

Boxes For Contributions In All  
Buildings Monday.

Monday, December 21st, has been declared Red Cross Day for the Institute. On this day there will be placed in each of the buildings properly marked boxes in which students may deposit whatever amount they desire to contribute to the work of relief in Europe. This work is under the control of a University Committee of the Red Cross, with headquarters in New York. The idea is that each month there will be some means established in the big educational institutions of the country by means of which funds may be obtained.

## BUSINESS CANDIDATES

Candidates for Business Assistant for Tech Show will meet today and Friday at five o'clock in the Tech Show office.

## SENIOR BOARD

The picture of the Senior governing board will be taken at 1 o'clock on Friday, December 11, at Notman's.

## CALENDAR

Wednesday, December 9, 1914.

1.30 P. M.—Meeting of candidates for The Tech. Lower Office.

4.00 P. M.—Varsity Basketball Practice. Gym.

5.00 P. M.—Gym Practice. Gym.

5.00 P. M.—Glee Club Rehearsal. Union.

5.00 P. M.—Candidates for Business Assistant of Tech Show. Tech Show Office.

7.45 P. M.—Musical Clubs Concert. Brookline Baptist Church.

8.00 P. M.—A. S. M. E. Meeting. Engineering Club Hall, Arlington Street.

Thursday, December 10, 1914.

1.30 P. M.—T. C. A. Talk. Union.

4.15 P. M.—Mandolin Club Rehearsal. Union. Room B.

5.00 P. M.—Cross Country Meeting. Gym.

7.30 P. M.—Finance Committee Meeting. Union. Room A.

# THE TECH

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(Daily except Saturday)  
General Manager .....5.30 to 6.00 P. M.  
Managing Editor .....6.30 to 7.30 P. M.  
Advertising Manager...5.00 to 5.30 P. M.  
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WEDNESDAY, DECEMBER 9, 1914.

## IN CHARGE OF THIS ISSUE.

Editor, H. E. Lobdell, '17.

Associate, J. G. Fairfield, '16.

Assistants, F. A. Stearns, '17; A. D. Nutt, '17; K. M. Lane, '17; J. W. Damon, '18; F. H. Wells, '18; E. P. Travis, '18.

The full attendance at Monday's convocation testifies to the esteem in which the student body holds the memory of William Barton Rogers. It indicates, moreover, the desire to absorb and perpetuate the true Tech spirit, unique among college ideals, which originated in the master character of our first President.

SEC EDIT

It seems unfortunate that any of the regular exercises should have been allowed to go on simultaneously with the convocation, while the majority of undergraduates were hearing Mr. Munroe's splendid tribute, a few were kept busy in the Physics Laboratory. We hope that on such occasions in the future, care will be taken to avoid conflicts between the student's apparent duty and his just desires.

The following activities have failed to respond to the Calendar Committee's request for lists of their officers:

Architectural Society,  
Co-op. Society,  
Latin-American Club,  
Cercle Francais,  
Tech Show Orchestra,  
Hockey Team,  
Class of 1917,  
Class of 1918.

Members who are interested in the standing of these organizations can help to get them off of this "black list" by speaking to the delinquent secretaries or by placing the desired information in the box beside the Union Calendar.

## ANNIVERSARY DINNER

(Continued from Page One)

money. Margaret F. Richardson of Boston is the artist who executed the work.

"We are here tonight to honor a man known and beloved by Tech men everywhere," said President MacLaurin, in opening his review of the work of Professor Richards at the Institute. "No one living has been longer associated with Technology, for he was in at the very beginning and he has retained the most intimate relationship up to the present.

"The Institute opened with temporary quarters in Summer Street in February, 1865, and the Catalogue of '65-'66, the first that was published, contains the name of Robert Hallowell Richards as a second year student. He was thus one of that group of whom President Eliot, who was also in at the beginning, but as a Professor, not as a student, spoke at the banquet commemorating the fiftieth anniversary of the granting of the Institute's charter and described as a 'picked up lot.' Mr. Eliot would agree that if their quality could be gauged by the specimens that have survived they were eminently worth picking up. Immediately on graduating with the first class in '68, he joined the staff of the Institute as an Assistant and only three years later was placed in charge of the mining laboratories. Then began that long period of service as a teacher and an investigator that won renown for Professor Richards and did so much to establish the reputation of the Institute in one of the great fields of its activity. In the specialty that he made peculiarly his own,—that of ore dressing—almost all that he did was pioneer work in education. There were no suitable text books in those days, he had to turn himself later to writing such books and produced the standard texts. There were no established methods of instruction, there were no laboratories. Reporting to the President of the Institute in 1873 on the work of his department, he said: 'Our work during the past year has been mainly tentative. We have tried to discover the best way of giving instruction.'

"Other speakers will deal, I hope, with various phases of his activity, but I cannot deny myself the pleasure of saying something with regard to certain tenets in his educational creed to which I have not yet referred. He always has had the clearest understanding of the importance of first-hand knowledge and has insisted that students should be taken as much as possible to the field. Even in the very earliest days of the Institute, we read of trips to Nevada, Utah, California, Virginia, Nova Scotia and other parts of Canada. In each locality visited, the geology of minerals, the mode of their disposition and extraction was carefully studied and much time spent in the mines. It was in 1871, the year in which he took charge of the laboratories, that another article in his creed was firmly established as the result of observations in the field. Describing the excursion of mining students in that year, President Runkle says in his report: 'It was during

(Continued on Page Three)

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**BOXING TEAM STARTED  
NUMBER OF MEN OUT**

**Meets Arranged With School  
And College Teams—Fresh-  
men Active.**

A movement to form a boxing team at the Institute has been started again this year. A similar attempt was made last year but as none of the challenges were accepted the sport received no recognition. The University of Pennsylvania, one of the colleges to which a challenge was issued, had proposed boxing as an intercollegiate sport but was not in condition to meet Technology at the time. This year, however, it is expected that meets will be arranged with both Penn and Cornell. At present there are about ten men receiving instruction from William Rolfe, former New England and also National Middleweight Champion and now considered one of the leading professionals in New England.

G. M. Maverick, '15, captain of last year's team, is heading the movement, and is desirous of getting the Athletic Association to purchase a dummy, in order to get the men in shape for the first meets with outside schools. Among these are the Allen School at West Newton, Mitchell Academy at Billerica, and Brown and Nichols at Cambridge.

Up to this time there have been men out for only four classes: Featherweight, 120-lb.; lightweight, 135-lb.; welterweight, 145-lb. and middleweight, 158-lb. The men out for these weights are Norton, '15, and DeMerritt, '16, of last year's team, and Merrick, Moffet, Montgomery, Kaler and Sawyer of the freshman class.

**TECH SHOW POSTERS**

**Competition Closes January  
Eleventh.**

Fifteen men came out for the Tech Show poster competition Monday afternoon. I. B. McDaniel, the author of the Show, suggested that the subject this year be a comical one to agree with the character of the plot.

The poster must be drawn on double elephant board, in two flat colors and black, with no shading. Red and yellow should be avoided, as this combination has been used for a number of the recent posters. All posters must be finished and finally submitted by January eleventh.

**ANNIVERSARY DINNER**

(Continued from Page Two)

this excursion whilst observing the wrecks of fortune strewn all over the territories that the thought occurred that much of this waste was due to a want of the combination of practical skill with scientific knowledge, and that the opportunity for experiment upon comparatively large quantities of ores must be offered to our students during their course as a part of their laboratory work.' 'Ore,' said Professor Richards at that time, 'may be subjected to the same kind of treatment and by the same kind of machinery in our laboratories as is

used in the best mines; we must have real machines, not toys; they must be big enough to work under practical conditions, not too big to make their constant use by a small number of students practical and without undue expense they should be specially designed for the purpose of teaching fundamental principles.' Another article of his creed that has had much weight in shaping the work done at the Institute is his belief in the possibility of a short course. A surprising amount of instruction can be given in a limited period by an accomplished teacher, who gives much thought to the problem of concentration, sticks to fundamental principles and plans his work with a single eye to getting those principles thoroughly grounded in the mind of the student.

"While taking his full share of the work of teaching, Professor Richards always found time for research. His investigations have given him a world-wide reputation and attracted to the Institute students from the uttermost parts of the earth. In the Department of Mining, we have had men from Canada and Mexico and from South America, China, Russia, England, France, South Africa and Australia.

"Older men in most of our institutions of learning are to be found who think that their institutions are going to the devil. Richards has kept too active and too young to fall in this way. His belief in Technology is as fresh and strong as ever. His name and influence will not soon be forgotten within the Institute, but I hope that nothing will be left undone that would tend to give permanence to that influence. When we have funds to build new mining laboratories, his name will, I hope, be permanently associated therewith. The spirit of devotion that characterizes Richards as it has characterized so many of his colleagues, is what has made Technology. Under all changes and for all time may that spirit remain!"

In behalf of the alumni Jasper Whiting expressed the sentiments of a group that "looked upon Professor Richards as embodying within himself the best that is in Technology." His brief sketch of the Richards that lives in the memories of Institute alumni, painted the eminent professor as "the man—the firm, just, painstaking, gentle and above all, kindly man that stands out clearest after the lapse of years." From his remembrances of Institute days the speaker noted an instance where a student was in unhappy frame of mind lest his mid-year senior examinations might go wrong. Here Professor Richards took the trouble, some days in advance of the official notification, to telegraph him that all was well.

"Professor Richards," said Mr. Whiting in closing his short address, "ten thousand Technology men extend to you tonight, through me, their heartiest congratulations and best wishes. If they were here, ten thousand men would rise to their feet and ten thousand voices would raise a cheer for you such as Boston never heard before. We are proud of what you have done for the Institute and for us. We recognize what you have

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# PATRONIZE

# ADVERTISERS

### MUSICAL CLUBS (Continued from Page One)

is the second stop beyond Coolidge Corner on Beacon St. The last practice will take place at 5 o'clock this afternoon in the Union.

On next Saturday evening, the Clubs will give their third concert of the year at Billings Hall, Wellesley College. The concert has attracted considerable attention owing to the fact that it will be one of the numerous events given for the benefit of the Wellesley College Restoration Fund.



G. R. DURVEA

In addition to the regular program by the Glee, Mandolin and Banjo Clubs, several features will be introduced; among these are selections by the Glee Club Quartet, the Hawaiian Quartet, readings, and an organ selection prepared by S. E. Clark, '15, for this occasion. Alexander Martin of Oregon, a member of the Glee Club Quartet, will give several humorous readings. Mr. Martin has had experience in interpretation and will appear regularly with the Clubs in this capacity.

Reserved seats for the Winter Concert and Dance will be placed on sale in the Union from one till two every day commencing tomorrow.

### ANNIVERSARY DINNER (Continued from Page Three)

accomplished for science and for humanity, but most of all we see in you personified the Technology spirit, which in the final analysis implies service to our fellow men."

Professor Richards retired from active work last June after fifty years of connection with the Institute. He was a member of the first graduating class and, following this, was an assistant from 1868 to 1871. In 1871 he was made Professor of Mineralogy and placed in charge of the Department of Mining Engineering upon its formation. Besides this work in the Mining Department he was Secretary of the Institute for a number of years. Professor Richards has contributed over one hundred volumes to the literature of mining, most of them technical works on assaying.

### T. C. A. CAMPAIGN IS PROGRESSING WELL

#### Mr. C. V. Hubbard To Speak Thursday On Japanese Work In Manchuria.

N. E. Kimball, '15, treasurer of the T. C. A., in charge of the financial campaign, reports that his men are meeting with good success in their efforts to procure subscriptions. Two days of the campaign have gone by satisfactorily, and Kimball is placing many hopes in what his men will be able to do today, the last day of the campaign. Subscriptions have been sent in by Alumni as well as members of the student body.

Mr. C. V. Hubbard of Japan has been obtained as the speaker for tomorrow. He was with the Japanese troops in the war with Russia and won both their love and the high approbation of the Government and Military authorities. He is widely conversant with conditions in Japan and has a first hand knowledge of conditions in the Far East. He is particularly fitted to advise men who are considering the foreign field.

Mr. Hubbard has taken as his subject, "What the Japanese Are Doing in Manchuria." In his talk he will take up their mining and railway enterprises and has expressed a willingness to answer any questions concerning prospects and problems of the engineer and architect in Japan.

### FEATURE ARTICLE

"The Teaching of Thermodynamics" is the title of an article which will appear in the January issue of the Monthly. It is written by a former Worcester Tech professor, who is at present a consulting engineer, and takes up the application of shorts methods to "thermo" problems. Such an article, the editors feel, is of especial interest to the Juniors.

### FINANCE COMMITTEE

There will be a meeting of the Finance Committee tomorrow at seven-thirty in Room A of the Union.

### MANDOLIN CLUB

There will be a rehearsal of the Mandolin Club tomorrow at 4.15 p. m. in Room B of the Union.

Meeting of Candidates for The Tech. One-thirty today. Lower Office.

The mining laboratories of the Institute and many other new features established by Professor Richards were the first of their kind in the world. At this time Technology itself was a new venture and the establishment of novelties, such as mining laboratories were then thought to be, was an exceedingly difficult task. As the fruits of Professor Richards' untiring labors in blocking out such broad plans for the future, he can now look upon the world and note between six and seven hundred graduates, nearly all of whom have followed the mining profession with success, with about fifty ranking among the world's leaders in mining engineering.

**MECHANICALS MEET AT ENGINEERS' CLUB**

Visited General Electric Plant Yesterday—Trip To Waltham Watch Company.

About sixty Seniors in Course II took a trip to the plant of the General Electric Company at West Lynn yesterday morning, under the supervision of Professor Clifford. The members were met at the factory office by guides who conducted them through the River Works in groups of ten. They first saw the process of building commutators, winding armatures and fields, and finishing frames and bases. Some large double-ended direct current generators producing 1000 amperes for electric furnaces were being assembled.

At 8 o'clock tonight there will be a meeting of the A. H. M. E. in Engineer's Club Hall, Arlington Street. Mr. V. E. Nunez, Technical expert of A. D. Little, Inc., will speak on "The Technology of Paper Making." Technology men have been invited to attend.

The Mechanical Engineering Society has secured permission for a trip through the factory of the Waltham Watch Company. Two trips will be made, one Thursday afternoon, December 17, the other on Friday, December 18. Each party is limited to thirty-five. Men can sign up with F. G. Purinton, for the Thursday trip, or with W. R. Hanchett for the Friday trip.

**CONVOCAATION**

(Continued from Page One)

tute of Technology, and in addition bequeathed a legacy of his spirit. His father came from Ireland and settled in this country. There were four sons, each one of whom contributed greatly to science. As far back as 1846, President Rogers drew up, with the aid of his brother Henry, a plan for a new kind of college. At that time the idea seemed like a wild dream. They set about making their visions come true and, in 1865, a school was established in Boston.

Two things aided in the founding. President Rogers was married to Miss Emma Savage, a Boston woman. Furthermore a group of prominent men had been trying to establish some kind of a technical school in Boston. They needed a leading man to carry out their ideas, and William Rogers was just the man who could make a success of such an undertaking. In 1861 a charter was secured with a grant from the state of two-thirds of a block of land in Back Bay. This land was twenty feet under water.

A school of industrial science was opened in 1865 on Summer street. In 1866, in the fall, the school was opened for the first time in Rogers Building, with only thirteen students. It was a great task to create the Institute out of nothing, with the Civil War going on and with the great depression of business.

President Walker was successor to William Rogers. Robert H. Richards, who has just retired after fifty years of service, labored night and

**MR. MORSE SPEAKER TO THE ELECTRICALS**

Discusses Insulation Of Wires And Cables—Mid-Year Trip Planned.

The Electrical Engineers met last night in the Union to hear Mr. Morse of the Simplex Wire & Cable Company on the manufacture of insulation for wire and cable. At this meeting it was moved to consider the admission of members of the Electrical Option of Course XV to the society. Mention was also made of the Technique picture. The subject of a mid-year trip was discussed also before Mr. Morse was introduced, this lecture being preparatory to a visit to the company's plant.

The speaker first told of tinning the wires, to prevent the sulphur of the rubber attacking the copper. The wires are then stranded, either concentric or rope stranding being used. Views were shown of the crude rubber, as it arrives, and as it comes in spongy sheets from the washers. Then the rolls go to the dryers, preferably the vacuum-dryers. In the compounding process, which is next, the sulphur and other ingredients are added; upon these depends the properties of the insulation. The Simplex Company maintains a laboratory to determine the effects of various substances upon the properties. Rubber tape machines were then shown on the screen. After forcing the rubber into the form of tubes by an Archimedes screw, the vulcanizing takes place, in large steam drums at 200 to 270 degrees Fahrenheit.

The company maintains a very extensive testing plant, which involves much expense, but which Mr. Morse said was necessary to get and maintain the best results. The coverings used for the wires were also discussed; among these are the steel tape cables, which can be buried underground without loss. The meeting closed with a regular M. I. T. cheer for Mr. Morse.

day in order to do the work of three men, so as to make the scanty means of the Institute last. President Rogers, even in ill health, worked long and faithfully. He was a type of gentleman unknown to the world today, soldierly in bearing, with a voice like a bell, with eyes deep set, brilliant and shining forth the splendid embodiment of human intellect.

Laboratory instruction was then completely unknown. In a few years, Walker, with his associates, had created laboratories and a new method of instruction. The only thing which kept the school during the hard times was the board of trustees who, when there was no money to pay the bills, took the money from their own pockets. President Rogers aided also in a way far more than can be realized.

At the graduation exercises on May 30, 1882, while on the platform in Huntington Hall, he fell dead when about to address the students to whom he meant so much.

Business Assistant Candidates Tech Show. Show Office today at five.

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THE tobacco you now smoke you consider "better tobacco than you ever smoked before." Naturally, you kept trying until you found a "better" one.

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### SCIENTIFIC SOCIETY

At the meeting of the Boston Scientific Society held last evening the question of America as a melting-pot for the races was discussed by Joseph F. Gould of Norwood. Mr. Gould has been a special student of the race. He presented some arguments and opinions that run counter to the generally expressed affirmative idea.

### VARSITY BASKETBALL

All candidates for the Varsity Basketball team are to report for practice Mondays and Fridays at five and Wednesdays at four. Men who do not have a perfect attendance record will not be taken on the trips. The team is to be measured for suits today.

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### FACULTY NOTICE

The exercises of the Institute will be suspended from December 24th (Thursday) to December 30th (Wednesday), both inclusive.

By vote of the Faculty, Instructors are requested to send to the Dean the names of all students who are absent from exercises on Wednesday, December 23rd, and on Thursday, December 31st.

### TUTTLE BEQUEST

Through the will of Lucius Tuttle, probated last Saturday, Technology receives a bequest of fifty thousand dollars.

Gym Practice. Five today.

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