

THE TECH

VOL. XXXII. NO. 71

BOSTON, MASS., TUESDAY, JANUARY 7, 1913

PRICE TWO CENTS

DR. PIERCE GIVES TALK AT HARVARD

Tech Men Among Large Audience Which Hears Talk and Then Visits Laboratory.

Last Saturday evening a most interesting meeting of the New England Wireless Society was held in one of the lecture rooms of the Jefferson Physical Laboratory at Harvard College. The meeting was called to order by Secretary Chapin, who introduced Dr. Pierce to a large audience, which did not consist entirely of the sterner sex, and which included many Tech men. Dr. Pierce, who is one of the professors in the department of Physics at Harvard, began his lecture by describing some experiments which he is now carrying on in investigating the effects of such variable factors as inductance, capacity, resistance, and coupling in producing a sharp resonance in the receiving circuit of a radio-telegraphic station. He explained how a station is ordinarily tuned to two separate waves, and discussed his endeavors to eliminate this disadvantage. The forms of apparatus which he used were very ingenious.

After this discussion Dr. Pierce, with the aid of Dr. Chafee, showed a Testla coil in operation. Instead of using the spark of an ordinary transformer or induction coil to produce electric oscillations, he used a Poulsen singing arc for exciting the Testla coil. The apparatus was so arranged that, instead of producing an excessively high potential between the secondary terminals of the Testla coil, a moderate voltage and a high amperage were produced. Flaming sparks were drawn from the terminals and an electric lamp was brilliantly lighted by current passing through the body. Large Geissler tubes were strongly and beautifully illuminated when brought into the electric field surrounding the coil. The high amperage obtained from the Poulsen arc was shown by placing a small solenoid of heavy wire across its terminals. When copper or silver coins were placed within the solenoid they were unaffected, but a strip of iron held within it was soon heated red-hot by the strong, rapidly oscillating magnetic field. Dr. Pierce interspersed these demonstrations with many witty and interesting remarks.

After this demonstration Dr. Pierce invited all to adjourn upstairs to his private laboratory where he performs
(Continued to Page 3, Col. 2.)

FINANCE COMMITTEE.

Dinner and Important Meeting in Union Thursday Evening.

A very important meeting of the Finance Committee will be held in the Union Thursday, at 6.30 o'clock. Notices have been sent to all the members in a special effort to have everyone present. At this meeting important business will be taken up which cannot be left over for a later meeting.

Preceding the business of the evening there will be a dinner in the dining room of the Union. The dinner will cost fifty cents, and any member of the committee who does not attend and does not notify the officers of his inability to do so, must also pay the price of the ticket.

BISHOP THOMAS SPEAKS THIS NOON IN UNION

"The Last of the Frontier" Is the Topic of the Address.

Although notices were posted all over the Institute yesterday announcing that the T. C. A. meeting was postponed until Tuesday, quite a number of men gathered in the Union with the expectation of hearing Bishop Thomas of Wyoming speak on "The Last of the Frontier." Dr. Thomas planned to return to Boston from Baltimore and Philadelphia, where he has been speaking this last week, in time for the meeting here. To reach here on time he found it necessary to travel by the Federal Express. As he was busy up to the last moment he failed to apply for accommodations until it was too late to procure them. This necessitated his traveling on a slower train and arriving too late for his appointment. He communicated with the secretary of the T. C. A. at once, explaining the situation, and the students were given notice at once of the postponement of the meeting.

According to his original plan it was imperative that he leave Boston Monday; but by making an extra effort he will be able to remain until Tuesday and give his much postponed talk. This plan was, of course, agreeable to the officers of the T. C. A., and they sent a special delivery letter to Dr. Thomas informing him of their ready compliance to his plans. He was assured that a large audience would be expecting him at the Union at 1.30 o'clock.

So much publicity has been given the meeting that all Technology undoubtedly know of Bishop Thomas' work. He will relate some of his experiences on the frontier of a rapidly growing country. The address cannot fail to interest all students.

Dr. Thomas has put himself to great inconvenience in order to come here, and has done all in his power to make amends for the unavoidable postponement of the meeting. The T. C. A. expects a large crowd to show their appreciation of his interest by coming to the Union to hear his remarks.

M. I. T. CATHOLIC CLUB.

Talk on Evolution at Union by the Rev. P. E. Cusick.

Tomorrow night the Catholic Club will hold the first of a series of talks on Evolution. The meeting will be held at the Union, at 6 o'clock. A fine dinner will be given, after which the Rev. Peter E. Cusick will address the meeting. The subject is one of the highest interest and one upon which widely diverse opinions are held by various persons. Evolution, though not a new topic, is one of the greatest importance and of vital interest to every serious thinking person. It is hoped that a large number of members will be present.

BASKETBALL GAME OFF.

The West End Athletic Club, whose team was to play the Sophomore basketball team last evening, cancelled the game yesterday afternoon, and consequently the much expected game was not played. It is hoped, however, that another game can be scheduled in the near future.

ANNUAL INTERCLASS MEET FRIDAY AT GYM

Big Indoor Athletic Event of Year Open to Men From All Classes.

Next Friday, at 8 o'clock, the annual interclass meet will be held at the gymnasium. The event is the largest of its kind to be held at the Institute and a large number of entries is expected. All the events are scratch and there will be an opportunity to see all the best athletes of the Institute in action. Any student is eligible, and this fact means that everyone of athletic ability will be present to participate. To the first and second place men medals will be awarded.

The list of events is as follows: 30-yard dash, 40-yard hurdles, 440-yard run, half-mile run, one-mile run, shot-put, pole vault and high jump.

In the 30-yard dash, Wilkins, '14, seems to be the favorite, although Adams, '16, and Wilson, '14, are looked upon as formidable opponents. In the 40-yard hurdles, Huff, '14, rules a slight favorite, with Curtis, '15, a close second. The 440-yard run should be won by Guething, '14, but by the way that Bolton, '14, and Mudge, '13, ran in the trials for the quarter-mile relay team they will give Guething a fast race. He seems to be a little off form recently and will have his hands full to beat these men.

The half-mile will be a tussle between Hill, '14, and Guething, '16, if Byland, '13, does not run. He is not in the best of condition at present and may not compete. If he does, however, the race will be all his own way. The mile run looks like Benson, '16, but the finish put up by Lee, '14, in the mile run last Saturday classes him as a dangerous man, and he will make Benson go his utmost to win.

McLeod is the favorite in the shot-put but is handicapped by a sore shoulder. If this hampers him severely the shot-put will be a contest between O'Brien, '15, and Freeman, '15.

The high jump will be closely contested by MacKinnon, '14, and Teeson, '15, who seem to be about evenly matched. Hall, '14, will probably be within an inch or two of these men if he does not actually tie them.

The cost of admission to the meet will be 25 cents.

DR. MILTON W. FRANKLIN

Will Speak Today on Uses of Ozone at Lowell 6, at 4 P. M.

Dr. Milton W. Franklin will make an address on the production of ozone and oxygen at 6 Lowell, at 4 o'clock this afternoon. Dr. Franklin has been for several years in charge of the ozone laboratory of the General Electric Company in Schenectady, N. Y. Recently he has been in Europe studying at various experimental laboratories. He will tell of the various uses of ozone, of its manufacture and of the apparatus used in its manufacture. Because of the new developments in the study of air, ozone and oxygen, it is expected that Dr. Franklin's talk will be interesting as well as most instructive.

Do you patronize our advertisers?

CHEMICAL SOCIETY TEN YEARS OLD NOW

Membership of Over 150 Makes Chemical Society One of the Biggest Here.

Fifty members of the Classes of '03, '04 and '05 who were taking the Chemical Courses at the Institute organized the Chemical Society in 1903. They held their first regular meeting on January 9, 1903, ten years ago from next Thursday. M. H. Clark, '03, the first president of the society, has since become assistant superintendent of the Boston Rubber Shoe Co. A. D. Smith, '04, the first vice-president, is now superintendent of the Canfield Oil Co. W. H. Whitcomb, '03, the secretary, is now Professor of Chemistry at Miami University. The first treasurer, C. F. Sammett, '03, is a chemist at the Government Bureau of Chemistry, and F. A. Olmstead, '03, one of the members of the Executive Committee, is with D. Little.

Last year the society decided to replace the office of Executive Committee by having two men to form a Program Committee. C. H. Albee, '13, is president of the society this year. H. G. Bruner, '13, X, is vice-president, and R. H. Howes, '14, is the secretary. A. W. Carpenter, '13, X, and G. W. Forrester, '13, X, are the members of the Program Committee. Carpenter was a member of the Union Committee last year, and is a member of the Cosmopolitan Club, and chairman of the Committee on T. C. A. Immigrant Work. The treasurer of the society is H. Rogers, '15, V.

When the society was formed it was stated that members of the three upper classes of Courses V, X and VIII (Option 3), were eligible to membership. Since that time the eligibility for membership has been extended to include graduate members of these courses as well as the upperclassmen of Courses VII and XI. During this year the formation of an Electro-Chemical Society was advocated, and the Chemical Society invited the members of Course XIV to become members. As it was finally decided to give up the idea of having an Electro-Chemical Society, about half of the upperclassmen of Course XIV have already joined the Chemical Society.

About a year from the first meeting of the society the officers arranged a joint meeting with the Boylston Society of Harvard. The speaker, Dr. Richards, of Harvard, discussed some of the then newly announced theories in regard to the disintegration of Radium, and showed that this disintegration had not been proved to occur, and that much of the evidence brought out was based upon very unstable arguments. The Institute so-

(Continued to Page 2, Col. 2.)

WEATHER.

Forecast for Boston and vicinity: Probably rain today; colder evening and night; moderate southerly and westerly winds.

CALENDAR.

Tuesday, January 7, 1913.

1.30—T. C. A. Talk, Bishop Thomas—Union.

1.30—Course VI Talk—6 Lowell.

Wednesday, January 8, 1913.

1.30—Course XIII Talk—32 Eng. C.

4.00—Course VII Talk—27 Pierce.

6.00—Catholic Club—Union.

BOSTON OPERA HOUSE

SAT., 1.45 to 5.45. LOUISE. Edvina, Gay, Zenatello, Marcoux. Cond., Andre-Caplet.
 SAT., 8 to 11. CAVALLERIA RUSTICANA. Amsden, Wilson, Romito, Fornari. Followed by I PAGLIACCI. Barnes, Gaudenzi, Blanchart, Everett. Cond., Moranzoni. Popular prices.
 SUNDAY ORCHESTRAL CONCERTS 3.15 to 4.45. 25c to \$1. Box Seats \$1.50.
 JAN. 5, FRENCH MUSIC. Clement and Britt, Soloists.
 Downtown Office, Steinert's, 162 Boylston.
 Mason and Hamlin Pianos used.
 Address Mail Orders to Box Office.

MAJESTIC THEATRE
 Tonight at 8
 Matinees Wed. & Sat. at 2.00
 2 Weeks Only
HANKY PANKY

SHUBERT THEATRE
 Even. at 8.15
 Wed. and Sat. Matinees at 2.15
 The Operetta for which Mr. and Mrs. Cornelius Vanderbilt paid \$5000 to entertain the Smart Set at Newport
The Merry Countess

Richard's School of Dancing
 Class Night Monday 7.30 :: Socials 8.30
 Private Lessons by appointment daily. Get the Tango and the Boston, the latest rage in Paris and New York. Get the One Step
 TEL. CONN. Back Bay 8080.
 30 Huntington Ave. :: Boston

BEST PRICES
...On...
 DRAFTING INSTRUMENTS, PAPERS, TRACING CLOTH, TRIANGLES, T SQUARES, SLIDING RULES, PENCILS, ETC. PAINTS VARNISHES AND HARDWARE.
 222 CLARENDON ST.
 ALSO
 84 WASHINGTON ST.
 Catalogues Free
Wadsworth, Howland & Co.
 Incorporated

Young Mens Hats for Every Occasion
COLLINS & FAIRBANKS COMPANY
 383 WASHINGTON STREET - BOSTON

Classified Advertisements and Notices

CLASSIFIED ADVERTISEMENTS AND NOTICES.

Faculty Notices, free.
 Activities, 4c. per line.
 Individuals, 10c. per line, 6 words to a line.

FOR PRINTING AND TYPEWRITING, we have the facilities and experience that puts us at the top in the point of speed, convenience and economy in Tech work. We have save some over half another's quotation. Before placing an order come to us for our price.

TECH TYPEWRITING BUREAU,
 Opposite the Union, 39 Trinity Place.
 (Mondays)

NOTICE.

1915 Class Officers' Picture at Notman's, 3 Park street, on Thursday, January 9th, at 1.15 P. M.

FOUND—A watch. Please apply at the Bursar's office. F. H. RAND. Bursar.

MID-YEAR GRADUATES—The more time you give us to typewrite your thesis the better will it be a worthy record of your greatest effort at Tech. Come in now to arrange a time schedule for this.

TECH TYPEWRITING BUREAU,
 Opposite the Union, 39 Trinity Place.
 (Tues-twice)

When in need of anything, no matter whatever it is, be sure and patronize our advertisers.

HOCKEY SCHEDULE.

Majority of Games Away From Home—Meet Yale Next.

With the hockey season well advanced comes the announcement from Manager Hurlburt of the schedule of the remaining games of the season. The majority of the games are arranged to be played away from home, owing to the difficulty of obtaining dates from the management of the Arena.

The schedule is as follows:
 January 11—Yale at New Haven.
 February 5—Syracuse Arena at Syracuse.
 February 6—Syracuse University at Syracuse.
 February 8—West Point at West Point.
 February 11—Williams at Boston.
 February 14—Mass Agricultural College at Amherst.
 February 15—Date pending.

SAY FELLOWS

We press, clean, repair and dye suits. Suits or overcoats sponged and pressed, 50c. Pants, 15c. Suits also made to order, \$15 up. Work will be called for and delivered. Telephone Back Bay 1754 M., or call at

St. James Tailoring Company
 St. James Ave., cor Berkeley St.

The Original
TECH BARBER SHOP
 Increased Business. Increased Help. Everything Sterilized.
Copley Square
 Bootblack Manicure Second Floor

HERRICK, COPLEY SQUARE
 Choice Seats for all Theatres
 Phone B. B. 2328
 Key Number Connecting Five Phones

Students' used clothing and other personal effects bought by
KEEZER
 360 COLUMBUS AVENUE
 (Near Dartmouth St.)
 Highest prices paid for same.
 TR. 916. Phone Write or Call
 Open Evenings to 9 o'clock

ESTABLISHED 1818
Brooks Brothers
CLOTHING
 Gentlemen's Furnishing Goods.
 BROADWAY COR. TWENTY-SECOND ST. NEW YORK.

Clothing, Furnishings, Hats, Shoes, Evening Clothes, Garments for Winter Sport or Travel.

Boston Sales Offices:
LAWRENCE BUILDING
 TREMONT AND WEST STREETS
 Send for Illustrated Catalogue

Write Ideas for Moving Picture Plays

YOU CAN WRITE PHOTO PLAYS AND EARN \$25. OR MORE WEEKLY
We Will Show You How!

If you have ideas---if you can *think*---we will show you the secrets of this fascinating new profession. Positively no experience or literary excellence necessary. No "flowery language" is wanted.

The demand for photoplays is practically unlimited. The big film manufacturers are "moving heaven and earth" in their attempts to get enough good plots to supply the ever increasing demand. They are offering \$100, and more, for single scenarios, or written ideas.

We have received many letters from the film manufacturers, such as VITAGRAPH, EDISON, ESSANAY, LUBIN, SOLAX, IMP, REX, RELIANCE, CHAMPION, COMET, MELIES, ETC., urging us to send photoplays to them. We want more writers and we'll gladly teach you the secrets of success.

We are selling photoplays written by people who "never before wrote a line for publication."

YOU WILL EARN \$100 MONTHLY FOR SPARE TIME WORK.

FREE SEND YOUR NAME AND ADDRESS AT ONCE FOR FREE COPY OF OUR ILLUSTRATED BOOK, "MOVING PICTURE PLAYWRITING"

Don't hesitate. Don't argue. Write **now** and learn what this new profession may mean for you and your future.

NATIONAL AUTHORS' INSTITUTE

R. 688-1543 Broadway NEW YORK CITY

THE TECH

VOL. XXXII. NO. 71

BOSTON, MASS., TUESDAY, JANUARY 7, 1913

PRICE TWO CENTS

DR. PIERCE GIVES TALK AT HARVARD

Tech Men Among Large Audience Which Hears Talk and Then Visits Laboratory.

Last Saturday evening a most interesting meeting of the New England Wireless Society was held in one of the lecture rooms of the Jefferson Physical Laboratory at Harvard College. The meeting was called to order by Secretary Chapin, who introduced Dr. Pierce to a large audience, which did not consist entirely of the sterner sex, and which included many Tech men. Dr. Pierce, who is one of the professors in the department of Physics at Harvard, began his lecture by describing some experiments which he is now carrying on in investigating the effects of such variable factors as inductance, capacity, resistance, and coupling in producing a sharp resonance in the receiving circuit of a radio-telegraphic station. He explained how a station is ordinarily tuned to two separate waves, and discussed his endeavors to eliminate this disadvantage. The forms of apparatus which he used were very ingenious.

After this discussion Dr. Pierce, with the aid of Dr. Chafee, showed a Testla coil in operation. Instead of using the spark of an ordinary transformer or induction coil to produce electric oscillations, he used a Poulsen singing arc for exciting the Testla coil. The apparatus was so arranged that, instead of producing an excessively high potential between the secondary terminals of the Testla coil, a moderate voltage and a high amperage were produced. Flaming sparks were drawn from the terminals and an electric lamp was brilliantly lighted by current passing through the body. Large Geissler tubes were strongly and beautifully illuminated when brought into the electric field surrounding the coil. The high amperage obtained from the Poulsen arc was shown by placing a small solenoid of heavy wire across its terminals. When copper or silver coins were placed within the solenoid they were unaffected, but a strip of iron held within it was soon heated red-hot by the strong, rapidly oscillating magnetic field. Dr. Pierce interspersed these demonstrations with many witty and interesting remarks.

After this demonstration Dr. Pierce invited all to adjourn upstairs to his private laboratory where he performs
(Continued to Page 3, Col. 2.)

FINANCE COMMITTEE.

Dinner and Important Meeting in Union Thursday Evening.

A very important meeting of the Finance Committee will be held in the Union Thursday, at 6.30 o'clock. Notices have been sent to all the members in a special effort to have everyone present. At this meeting important business will be taken up which cannot be left over for a later meeting.

Preceding the business of the evening there will be a dinner in the dining room of the Union. The dinner will cost fifty cents, and any member of the committee who does not attend and does not notify the officers of his inability to do so, must also pay the price of the ticket.

BISHOP THOMAS SPEAKS THIS NOON IN UNION

"The Last of the Frontier" Is the Topic of the Address.

Although notices were posted all over the Institute yesterday announcing that the T. C. A. meeting was postponed until Tuesday, quite a number of men gathered in the Union with the expectation of hearing Bishop Thomas of Wyoming speak on "The Last of the Frontier." Dr. Thomas planned to return to Boston from Baltimore and Philadelphia, where he has been speaking this last week, in time for the meeting here. To reach here on time he found it necessary to travel by the Federal Express. As he was busy up to the last moment he failed to apply for accommodations until it was too late to procure them. This necessitated his traveling on a slower train and arriving too late for his appointment. He communicated with the secretary of the T. C. A. at once, explaining the situation, and the students were given notice at once of the postponement of the meeting.

According to his original plan it was imperative that he leave Boston Monday; but by making an extra effort he will be able to remain until Tuesday and give his much postponed talk. This plan was, of course, agreeable to the officers of the T. C. A., and they sent a special delivery letter to Dr. Thomas informing him of their ready compliance to his plans. He was assured that a large audience would be expecting him at the Union at 1.30 o'clock.

So much publicity has been given the meeting that all Technology undoubtedly know of Bishop Thomas' work. He will relate some of his experiences on the frontier of a rapidly growing country. The address cannot fail to interest all students.

Dr. Thomas has put himself to great inconvenience in order to come here, and has done all in his power to make amends for the unavoidable postponement of the meeting. The T. C. A. expects a large crowd to show their appreciation of his interest by coming to the Union to hear his remarks.

M. I. T. CATHOLIC CLUB.

Talk on Evolution at Union by the Rev. P. E. Cusick.

Tomorrow night the Catholic Club will hold the first of a series of talks on Evolution. The meeting will be held at the Union, at 6 o'clock. A fine dinner will be given, after which the Rev. Peter E. Cusick will address the meeting. The subject is one of the highest interest and one upon which widely diverse opinions are held by various persons. Evolution, though not a new topic, is one of the greatest importance and of vital interest to every serious thinking person. It is hoped that a large number of members will be present.

BASKETBALL GAME OFF.

The West End Athletic Club, whose team was to play the Sophomore basketball team last evening, cancelled the game yesterday afternoon, and consequently the much expected game was not played. It is hoped, however, that another game can be scheduled in the near future.

ANNUAL INTERCLASS MEET FRIDAY AT GYM

Big Indoor Athletic Event of Year Open to Men From All Classes.

Next Friday, at 8 o'clock, the annual interclass meet will be held at the gymnasium. The event is the largest of its kind to be held at the Institute and a large number of entries is expected. All the events are scratch and there will be an opportunity to see all the best athletes of the Institute in action. Any student is eligible, and this fact means that everyone of athletic ability will be present to participate. To the first and second place men medals will be awarded.

The list of events is as follows: 30-yard dash, 40-yard hurdles, 440-yard run, half-mile run, one-mile run, shot-put, pole vault and high jump.

In the 30-yard dash, Wilkins, '14, seems to be the favorite, although Adams, '16, and Wilson, '14, are looked upon as formidable opponents. In the 40-yard hurdles, Huff, '14, rules a slight favorite, with Curtis, '15, a close second. The 440-yard run should be won by Guething, '14, but by the way that Bolton, '14, and Mudge, '13, ran in the trials for the quarter-mile relay team they will give Guething a fast race. He seems to be a little off form recently and will have his hands full to beat these men.

The half-mile will be a tussle between Hill, '14, and Guething, '16, if Byland, '13, does not run. He is not in the best of condition at present and may not compete. If he does, however, the race will be all his own way. The mile run looks like Benson, '16, but the finish put up by Lee, '14, in the mile run last Saturday classes him as a dangerous man, and he will make Benson go his utmost to win.

McLeod is the favorite in the shot-put but is handicapped by a sore shoulder. If this hampers him severely the shot-put will be a contest between O'Brien, '15, and Freeman, '15.

The high jump will be closely contested by MacKinnon, '14, and Teeson, '15, who seem to be about evenly matched. Hall, '14, will probably be within an inch or two of these men if he does not actually tie them.

The cost of admission to the meet will be 25 cents.

DR. MILTON W. FRANKLIN

Will Speak Today on Uses of Ozone at Lowell 6, at 4 P. M.

Dr. Milton W. Franklin will make an address on the production of ozone and oxygen at 6 Lowell, at 4 o'clock this afternoon. Dr. Franklin has been for several years in charge of the ozone laboratory of the General Electric Company in Schenectady, N. Y. Recently he has been in Europe studying at various experimental laboratories. He will tell of the various uses of ozone, of its manufacture and of the apparatus used in its manufacture. Because of the new developments in the study of air, ozone and oxygen, it is expected that Dr. Franklin's talk will be interesting as well as most instructive.

Do you patronize our advertisers?

CHEMICAL SOCIETY TEN YEARS OLD NOW

Membership of Over 150 Makes Chemical Society One of the Biggest Here.

Fifty members of the Classes of '03, '04 and '05 who were taking the Chemical Courses at the Institute organized the Chemical Society in 1903. They held their first regular meeting on January 9, 1903, ten years ago from next Thursday. M. H. Clark, '03, the first president of the society, has since become assistant superintendent of the Boston Rubber Shoe Co. A. D. Smith, '04, the first vice-president, is now superintendent of the Canfield Oil Co. W. H. Whitcomb, '03, the secretary, is now Professor of Chemistry at Miami University. The first treasurer, C. F. Sammett, '03, is a chemist at the Government Bureau of Chemistry, and F. A. Olmstead, '03, one of the members of the Executive Committee, is with D. Little.

Last year the society decided to replace the office of Executive Committee by having two men to form a Program Committee. C. H. Albee, '13, is president of the society this year. H. C. Bruner, '13, X, is vice-president, and R. H. Howes, '14, is the secretary. A. W. Carpenter, '13, X, and G. W. Forrester, '13, X, are the members of the Program Committee. Carpenter was a member of the Union Committee last year, and is a member of the Cosmopolitan Club, and chairman of the Committee on T. C. A. Immigrant Work. The treasurer of the society is H. Rogers, '15, V.

When the society was formed it was stated that members of the three upper classes of Courses V, X and VIII (Option 3), were eligible to membership. Since that time the eligibility for membership has been extended to include graduate members of these courses as well as the upperclassmen of Courses VII and XI. During this year the formation of an Electro-Chemical Society was advocated, and the Chemical Society invited the members of Course XIV to become members. As it was finally decided to give up the idea of having an Electro-Chemical Society, about half of the upperclassmen of Course XIV have already joined the Chemical Society.

About a year from the first meeting of the society the officers arranged a joint meeting with the Boylston Society of Harvard. The speaker, Dr. Richards, of Harvard, discussed some of the then newly announced theories in regard to the disintegration of Radium, and showed that this disintegration had not been proved to occur, and that much of the evidence brought out was based upon very unstable arguments. The Institute so—
(Continued to Page 2, Col. 2.)

WEATHER.

Forecast for Boston and vicinity: Probably rain today; colder evening and night; moderate southerly and westerly winds.

CALENDAR.

Tuesday, January 7, 1913.

1.30—T. C. A. Talk, Bishop Thomas—Union.

1.30—Course VI Talk—6 Lowell.

Wednesday, January 8, 1913.

1.30—Course XIII Talk—32 Eng. C.

4.00—Course VII Talk—27 Pierce.

6.00—Catholic Club—Union.

BOSTON OPERA HOUSE

SAT., 1.45 to 5.45. LOUISE. Edvina, Gay, Zenatello, Marcoux. Cond., Andre-Caplet.
 SAT., 8 to 11. CAVALLERIA RUSTICANA. Amsden, Wilson, Romito, Fornari. Followed by I PAGLIACCI. Barnes, Gaudenzi, Blanchart, Everett. Cond., Moranzoni. Popular prices.
 SUNDAY ORCHESTRAL CONCERTS 3.15 to 4.45. 25c to \$1. Box Seats \$1.50.
 JAN. 5, FRENCH MUSIC. Clement and Britt, Soloists.
 Downtown Office, Steinert's, 162 Boylston.
 Mason and Hamlin Pianos used.
 Address Mail Orders to Box Office.

MAJESTIC THEATRE
 Tonight at 8
 Matinees Wed. & Sat. at 2.00
 2 Weeks Only
HANKY PANKY

SHUBERT THEATRE
 Even. at 8.15
 Wed. and Sat. Matinees at 2.15
 The Operetta for which Mr. and Mrs. Cornelius Vanderbilt paid \$5000 to entertain the Smart Set at Newport
The Merry Countess

Richard's School of Dancing
 Class Night Monday 7.30 :: Socials 8.30
 Private Lessons by appointment daily. Get the Tango and the Boston, the latest rage in Paris and New York. Get the One Step TEL. CONN. Back Bay 6080.
 30 Huntington Ave. :: Boston

BEST PRICES

...On...
 DRAFTING INSTRUMENTS, PAPERS, TRACING CLOTH, TRIANGLES, T SQUARES, SLIDING RULES, PENCILS, ETC. PAINTS VARNISHES AND HARDWARE.
 222 CLARENDON ST.
 ALSO
 84 WASHINGTON ST.
 Catalogues Free
Wadsworth, Howland & Co.
 Incorporated

Young Mens Hats for Every Occasion
COLLINS & FAIRBANKS COMPANY
 383 WASHINGTON STREET - BOSTON

Classified Advertisements and Notices

CLASSIFIED ADVERTISEMENTS AND NOTICES.

Faculty Notices, free.
 Activities, 4c. per line.
 Individuals, 10c. per line, 6 words to a line.

FOR PRINTING AND TYPEWRITING, we have the facilities and experience that puts us at the top in the point of speed, convenience and economy in Tech work. We have save some over half another's quotation. Before placing an order come to us for our price.

TECH TYPEWRITING BUREAU, Opposite the Union, 39 Trinity Place. (Mondays)

NOTICE.

1915 Class Officers' Picture at Notman's, 3 Park street, on Thursday, January 9th, at 1.15 P. M.

FOUND—A watch. Please apply at the Bursar's office. F. H. RAND. Bursar.

MID-YEAR GRADUATES—The more time you give us to typewrite your thesis the better will it be a worthy record of your greatest effort at Tech. Come in now to arrange a time schedule for this.

TECH TYPEWRITING BUREAU, Opposite the Union, 39 Trinity Place. (Tues-twice)

When in need of anything, no matter whatever it is, be sure and patronize our advertisers.

HOCKEY SCHEDULE.

Majority of Games Away From Home—Meet Yale Next.

With the hockey season well advanced comes the announcement from Manager Huriburt of the schedule of the remaining games of the season. The majority of the games are arranged to be played away from home, owing to the difficulty of obtaining dates from the management of the Arena.

The schedule is as follows:
 January 11—Yale at New Haven.
 February 5—Syracuse Arena at Syracuse.
 February 6—Syracuse University at Syracuse.
 February 8—West Point at West Point.
 February 11—Williams at Boston.
 February 14—Mass Agricultural College at Amherst.
 February 15—Date pending.

SAY FELLOWS

We press, clean, repair and dye suits. Suits or overcoats sponged and pressed, 50c. Pants, 15c. Suits also made to order, \$15 up. Work will be called for and delivered. Telephone Back Bay 1754 M., or call at

St. James Tailoring Company

St. James Ave., cor Berkeley St.

The Original
TECH BARBER SHOP
 Increased Business, Increased Help. Everything Sterilized
Copley Square
 Bootblack Manicure Second Floor

HERRICK, COPLEY SQUARE

Choice Seats for all Theatres
 Phone B. B. 2328
 Key Number Connecting Five Phones

Students' used clothing and other personal effects bought by

KEEZER

360 COLUMBUS AVENUE
 (Near Dartmouth St.)
 Highest prices paid for same.
 TR. 916. Phone Write or Call
 Open Evenings to 9 o'clock

ESTABLISHED 1818
Brooks Brothers
CLOTHING
 Gentlemen's Furnishing Goods.
 BROADWAY COR. TWENTY-SECOND ST. NEW YORK.

Clothing, Furnishings, Hats, Shoes, Evening Clothes, Garments for Winter Sport or Travel.

Boston Sales Offices:

LAWRENCE BUILDING

TREMONT AND WEST STREETS

Send for Illustrated Catalogue

Write Ideas for Moving Picture Plays

YOU CAN WRITE PHOTO PLAYS AND EARN \$25. OR MORE WEEKLY
We Will Show You How!

If you have ideas---if you can *think*---we will show you the secrets of this fascinating new profession. Positively no experience or literary excellence necessary. No "flowery language" is wanted.

The demand for photoplays is practically unlimited. The big film manufacturers are "moving heaven and earth" in their attempts to get enough good plots to supply the ever increasing demand. They are offering \$100, and more, for single scenarios, or written ideas.

We have received many letters from the film manufacturers, such as VITAGRAPH, EDISON, ESSANAY, LUBIN, SOLAX, IMP, REX, RELIANCE, CHAMPION, COMET, MELIES, ETC., urging us to send photoplays to them. We want more writers and we'll gladly teach you the secrets of success.

We are selling photoplays written by people who "never before wrote a line for publication."

YOU WILL EARN \$100 MONTHLY FOR SPARE TIME WORK.

FREE SEND YOUR NAME AND ADDRESS AT ONCE FOR FREE COPY OF OUR ILLUSTRATED BOOK, "MOVING PICTURE PLAYWRITING"

Don't hesitate. Don't argue. Write **NOW** and learn what this new profession may mean for you and your future.

NATIONAL AUTHORS' INSTITUTE

R. 688-1543 Broadway
 NEW YORK CITY

THE TECH

VOL. XXXII. NO. 71

BOSTON, MASS., TUESDAY, JANUARY 7, 1913

PRICE TWO CENTS

DR. PIERCE GIVES TALK AT HARVARD

Tech Men Among Large Audience Which Hears Talk and Then Visits Laboratory.

Last Saturday evening a most interesting meeting of the New England Wireless Society was held in one of the lecture rooms of the Jefferson Physical Laboratory at Harvard College. The meeting was called to order by Secretary Chapin, who introduced Dr. Pierce to a large audience, which did not consist entirely of the sterner sex, and which included many Tech men. Dr. Pierce, who is one of the professors in the department of Physics at Harvard, began his lecture by describing some experiments which he is now carrying on in investigating the effects of such variable factors as inductance, capacity, resistance, and coupling in producing a sharp resonance in the receiving circuit of a radio-telegraphic station. He explained how a station is ordinarily tuned to two separate waves, and discussed his endeavors to eliminate this disadvantage. The forms of apparatus which he used were very ingenious.

After this discussion Dr. Pierce, with the aid of Dr. Chafee, showed a Testla coil in operation. Instead of using the spark of an ordinary transformer or induction coil to produce electric oscillations, he used a Poulsen singing arc for exciting the Testla coil. The apparatus was so arranged that, instead of producing an excessively high potential between the secondary terminals of the Testla coil, a moderate voltage and a high amperage were produced. Flaming sparks were drawn from the terminals and an electric lamp was brilliantly lighted by current passing through the body. Large Geissler tubes were strongly and beautifully illuminated when brought into the electric field surrounding the coil. The high amperage obtained from the Poulsen arc was shown by placing a small solenoid of heavy wire across its terminals. When copper or silver coins were placed within the solenoid they were unaffected, but a strip of iron held within it was soon heated red-hot by the strong, rapidly oscillating magnetic field. Dr. Pierce interspersed these demonstrations with many witty and interesting remarks.

After this demonstration Dr. Pierce invited all to adjourn upstairs to his private laboratory where he performs
(Continued to Page 3, Col. 2.)

FINANCE COMMITTEE.

Dinner and Important Meeting in Union Thursday Evening.

A very important meeting of the Finance Committee will be held in the Union Thursday, at 6.30 o'clock. Notices have been sent to all the members in a special effort to have everyone present. At this meeting important business will be taken up which cannot be left over for a later meeting.

Preceding the business of the evening there will be a dinner in the dining room of the Union. The dinner will cost fifty cents, and any member of the committee who does not attend and does not notify the officers of his inability to do so, must also pay the price of the ticket.

BISHOP THOMAS SPEAKS THIS NOON IN UNION

"The Last of the Frontier" Is the Topic of the Address.

Although notices were posted all over the Institute yesterday announcing that the T. C. A. meeting was postponed until Tuesday, quite a number of men gathered in the Union with the expectation of hearing Bishop Thomas of Wyoming speak on "The Last of the Frontier." Dr. Thomas planned to return to Boston from Baltimore and Philadelphia, where he has been speaking this last week, in time for the meeting here. To reach here on time he found it necessary to travel by the Federal Express. As he was busy up to the last moment he failed to apply for accommodations until it was too late to procure them. This necessitated his traveling on a slower train and arriving too late for his appointment. He communicated with the secretary of the T. C. A. at once, explaining the situation, and the students were given notice at once of the postponement of the meeting.

According to his original plan it was imperative that he leave Boston Monday; but by making an extra effort he will be able to remain until Tuesday and give his much postponed talk. This plan was, of course, agreeable to the officers of the T. C. A., and they sent a special delivery letter to Dr. Thomas informing him of their ready compliance to his plans. He was assured that a large audience would be expecting him at the Union at 1.30 o'clock.

So much publicity has been given the meeting that all Technology undoubtedly know of Bishop Thomas' work. He will relate some of his experiences on the frontier of a rapidly growing country. The address cannot fail to interest all students.

Dr. Thomas has put himself to great inconvenience in order to come here, and has done all in his power to make amends for the unavoidable postponement of the meeting. The T. C. A. expects a large crowd to show their appreciation of his interest by coming to the Union to hear his remarks.

M. I. T. CATHOLIC CLUB.

Talk on Evolution at Union by the Rev. P. E. Cusick.

Tomorrow night the Catholic Club will hold the first of a series of talks on Evolution. The meeting will be held at the Union, at 6 o'clock. A fine dinner will be given, after which the Rev. Peter E. Cusick will address the meeting. The subject is one of the highest interest and one upon which widely diverse opinions are held by various persons. Evolution, though not a new topic, is one of the greatest importance and of vital interest to every serious thinking person. It is hoped that a large number of members will be present.

BASKETBALL GAME OFF.

The West End Athletic Club, whose team was to play the Sophomore basketball team last evening, cancelled the game yesterday afternoon, and consequently the much expected game was not played. It is hoped, however, that another game can be scheduled in the near future.

ANNUAL INTERCLASS MEET FRIDAY AT GYM

Big Indoor Athletic Event of Year Open to Men From All Classes.

Next Friday, at 8 o'clock, the annual interclass meet will be held at the gymnasium. The event is the largest of its kind to be held at the Institute and a large number of entries is expected. All the events are scratch and there will be an opportunity to see all the best athletes of the Institute in action. Any student is eligible, and this fact means that everyone of athletic ability will be present to participate. To the first and second place men medals will be awarded.

The list of events is as follows: 30-yard dash, 40-yard hurdles, 440-yard run, half-mile run, one-mile run, shot-put, pole vault and high jump.

In the 30-yard dash, Wilkins, '14, seems to be the favorite, although Adams, '16, and Wilson, '14, are looked upon as formidable opponents. In the 40-yard hurdles, Huff, '14, rules a slight favorite, with Curtis, '15, a close second. The 440-yard run should be won by Guething, '14, but by the way that Bolton, '14, and Mudge, '13, ran in the trials for the quarter-mile relay team they will give Guething a fast race. He seems to be a little off form recently and will have his hands full to beat these men.

The half-mile will be a tussle between Hill, '14, and Guething, '16, if Byland, '13, does not run. He is not in the best of condition at present and may not compete. If he does, however, the race will be all his own way. The mile run looks like Renson, '16, but the finish put up by Lee, '14, in the mile run last Saturday classes him as a dangerous man, and he will make Renson go his utmost to win.

McLeod is the favorite in the shot-put but is handicapped by a sore shoulder. If this hampers him severely the shot-put will be a contest between O'Brien, '15, and Freeman, '15.

The high jump will be closely contested by MacKinnon, '14, and Teeson, '15, who seem to be about evenly matched. Hall, '14, will probably be within an inch or two of these men if he does not actually tie them.

The cost of admission to the meet will be 25 cents.

DR. MILTON W. FRANKLIN

Will Speak Today on Uses of Ozone at Lowell 6, at 4 P. M.

Dr. Milton W. Franklin will make an address on the production of ozone and oxygen at 6 Lowell, at 4 o'clock this afternoon. Dr. Franklin has been for several years in charge of the ozone laboratory of the General Electric Company in Schenectady, N. Y. Recently he has been in Europe studying at various experimental laboratories. He will tell of the various uses of ozone, of its manufacture and of the apparatus used in its manufacture. Because of the new developments in the study of air, ozone and oxygen, it is expected that Dr. Franklin's talk will be interesting as well as most instructive.

Do you patronize our advertisers?

CHEMICAL SOCIETY TEN YEARS OLD NOW

Membership of Over 150 Makes Chemical Society One of the Biggest Here.

Fifty members of the Classes of '03, '04 and '05 who were taking the Chemical Courses at the Institute organized the Chemical Society in 1903. They held their first regular meeting on January 9, 1903, ten years ago from next Thursday. M. H. Clark, '03, the first president of the society, has since become assistant superintendent of the Boston Rubber Shoe Co. A. D. Smith, '04, the first vice-president, is now superintendent of the Canfield Oil Co. W. H. Whitcomb, '03, the secretary, is now Professor of Chemistry at Miami University. The first treasurer, C. F. Sammett, '03, is a chemist at the Government Bureau of Chemistry, and F. A. Olmstead, '03, one of the members of the Executive Committee, is with D. Little.

Last year the society decided to replace the office of Executive Committee by having two men to form a Program Committee. C. H. Albee, '13, is president of the society this year. H. G. Bruner, '13, X, is vice-president, and R. H. Howes, '14, is the secretary. A. W. Carpenter, '13, X, and G. W. Forrester, '13, X, are the members of the Program Committee. Carpenter was a member of the Union Committee last year, and is a member of the Cosmopolitan Club, and chairman of the Committee on T. C. A. Immigrant Work. The treasurer of the society is H. Rogers, '15, V.

When the society was formed it was stated that members of the three upper classes of Courses V, X and VIII (Option 3), were eligible to membership. Since that time the eligibility for membership has been extended to include graduate members of these courses as well as the upperclassmen of Courses VII and XI. During this year the formation of an Electro-Chemical Society was advocated, and the Chemical Society invited the members of Course XIV to become members. As it was finally decided to give up the idea of having an Electro-Chemical Society, about half of the upperclassmen of Course XIV have already joined the Chemical Society.

About a year from the first meeting of the society the officers arranged a joint meeting with the Boylston Society of Harvard. The speaker, Dr. Richards, of Harvard, discussed some of the then newly announced theories in regard to the disintegration of Radium, and showed that this disintegration had not been proved to occur, and that much of the evidence brought out was based upon very unstable arguments. The Institute so-
(Continued to Page 2, Col. 2.)

WEATHER.

Forecast for Boston and vicinity: Probably rain today; colder evening and night; moderate southerly and westerly winds.

CALENDAR.

Tuesday, January 7, 1913.

1.30—T. C. A. Talk, Bishop Thomas—Union.

1.30—Course VI Talk—6 Lowell.

Wednesday, January 8, 1913.

1.30—Course XIII Talk—32 Eng. C.

4.00—Course VII Talk—27 Pierce.

6.00—Catholic Club—Union.

THE TECH

Entered as second-class matter, Sept. 15, 1911, at the postoffice at Boston, Mass., under the act of Congress of March 3, 1879.

Published daily, except Sunday, during the college year by students of the Massachusetts Institute of Technology.

MANAGING BOARD.

A. T. Gibson, 1913.....General Manager
S. H. Taylor, 1914.....Editor-in-Chief
B. E. Adams, 1915.....Business Manager

NEWS BOARD

M. Paris, 1914.....Institute Editor
H. Rogers, 1915.....Societies Editor
P. J. Munn, 1915.....Exchange Editor

NEWS STAFF.

S. Berkowitz, '15...T. W. Burkhart, '15
E. A. Weaver, 1915...R. E. DeMerritt, 1915
D. N. Test, 1916...E. H. Townsend, 1916
G. W. Wyman, 1916.

BUSINESS BOARD.

L. C. Lamb, 1915.....Adv. Manager

Office Hours of Managing Editor:
8.40 to 9.00 A. M. daily, 1.30 to 2 P. M.
Except Thursdays and Saturdays.

Office Hours of Business Manager:
8.30 to 9.00 A. M. Daily.

Office Hours of Editor-in-Chief:
5.30 to 6.00 P. M. Daily, Except Saturday.

Office, 42 Trinity Place.

Phone—Back Bay 5527 or 2180.

Night Phone—Back Bay 5527.

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

Subscriptions, \$2.00 per year, in advance. Single copies, 2 cents.

TUESDAY, JANUARY 7, 1913

We publish another of the editorials presented in the Pi Delta Epsilon contest. The subject was assigned.

THE DISTRIBUTION OF VACATIONS.

The Institute calendar for 1912-13 allows us one day at Thanksgiving, one week at Christmas, a week or more at "mid-year's," four days for "Junior Week," and nearly four months in the summer. The function of two of these vacations is primarily to allow the men to go home. How far can we go on the time allowed? For the man who lives only a few miles from Boston, perhaps they are all right; but how about the others, those from the Middle and Far West? Obviously they can get home only in the summer.

Is it not possible to arrange the time so that a larger proportion of the men will receive the benefit? Christmas and Thanksgiving, the two days in the year when a fellow most wishes to be home, need more time, if any large proportion of the men are to get there. This time cannot be taken from "Junior Week;" that is already as short as possible. It can not be taken from the term, which is also pretty well filled. With these eliminated, there are only the summer vacation and that at mid-year's to be tampered with. At mid-year's, where the function of the vacation is primarily rest, we ought to be able to spare a few days, while our summer vacation, one of the longest allowed by any of the colleges, could easily stand shortening. What, then, is the objection to giving us from Tuesday to the following Monday at Thanksgiving, taking these extra three days from the week at mid-year's, and another week at Christmas, to be taken from the summer vacation?

The 1913 intercollegiate wrestling meet will be held in Ithaca. At the meeting of the association Lehigh University was admitted to the league, besides an application of Penn State was referred to a committee.

The Seniors working on eight-hour shifts are about to get a taste of real work.

SENIOR PORTFOLIO COMMITTEE MEETS

Election of Officers for Coming Year at Meeting in Eng. A Last Night.

Yesterday the Senior Portfolio Committee held a meeting at 5 P. M., in 45 Eng. A, at which President Matteson of the Senior Class presided. After the meeting had been called to order the election of officers was held and the following were elected: R. B. Nichols, chairman; H. M. Rand, secretary, and W. N. Holmes, treasurer. The other members of the committee are A. F. Brewer and R. B. Haynes.

Randall Cremer, chairman of last year's Portfolio Committee, then gave a little sketch of the notable success of last year's board. He also praised and encouraged the efforts of the present committee, which is getting well under way and is working to make this the most successful portfolio ever issued.

AIR POSTAL ROUTE.

The postmaster at the Boston post-office has applied to Washington for permission to establish a temporary aeroplane parcels post route between Boston and New York. This was done at the request of Harry M. Jones, of Providence, who recently landed in his airship in the Common. At present Jones has his machine at Franklin Field. He wants to leave Boston today, and he asks permission to carry 25 pounds of parcels post mail.

Stops are planned for the larger cities along the route, and if the permission is granted Jones will be the first man to carry parcels post matter in an aeroplane. He will, however, have to be sworn in as a United States mail carrier before he can do so. Jones planned to fly to Providence yesterday from Franklin Field, but after a preliminary flight he postponed the trip until today, on account of unsatisfactory conditions.

CHEMICAL SOCIETY.

(Continued from Page 1, Col. 4.)
The society invited the Harvard society to a return meeting a few weeks later, and had Prof. A. A. Noyes as speaker.

The membership of the society for the last few years has been approaching an even hundred, although last year the active membership was very small. Last year five meetings were held, with talks on "Asbestos Wood," "Boston's Milk Supply" and "Pittsburgh's Water Supply."

This year the society has taken a place more nearly that which it should occupy in the list of professional societies. It has an active membership of over 50, and has received such help from the Faculty of the Chemical Department that it is readily securing good speakers on chemical subjects.

The first dinner of the year was attended by 91 men, and Professor Walker, the new head of Course X, gave a very interesting talk on the International Congress of Applied Chemistry. Mr. Jasper Whiting, the inventor of the Whiting Electrolytic Cell, was the speaker at the November meeting. Just before the Christmas holidays the Institute society held a joint meeting with the Northeastern Section of the American Chemical Society. Mr. Linn Bradley spoke on the "Development of the Cottrell Electric Precipitation Process."

This year the members of the Chemical Courses have shown great interest in the society, and by their enthusiasm and the great kindness and helpfulness of the members of the instructing staff, especially Professors Talbot, Walker, Lewis and Fay, the society has been boosted out of the lethargy into which it had fallen during last year. The present membership of 150 represents more than half of the total number of students eligible to membership, and places the society in the rank of the largest societies.

STONE & WEBSTER

CHARLES A. STONE, '88

RUSSELL ROBB, '88

ELIOT WADSWORTH, '91

JOHN W. HALLOWELL

EDWIN S. WEBSTER, '88

HENRY G. BRADLEE, '91

DWIGHT P. ROBINSON '92

Securities of Public Service Corporations
Under the Management of our Organization

STONE & WEBSTER
Management Association
GENERAL MANAGERS OF PUBLIC SERVICE CORPORATIONS

STONE & WEBSTER
Engineering Corporation
CONSTRUCTING ENGINEERS

COES & STODDER

Desirable Shoes for Students

10 TO 14 SCHOOL ST.

HOTEL BRUNSWICK

BOSTON

EUROPEAN AND AMERICAN PLANS

HERBERT H. BARNES, Proprietor

McMORROW

College Shoes for College Men

238 Washington Street, Boston, Mass.

OPPOSITE YOUNG'S HOTEL

THE ADVANTAGES WE OFFER

PROGRESSIVE methods, large resources and two conveniently located, thoroughly modern bank buildings, combine to make the **Old Colony Trust Company** the most desirable depository in New England.

Interest-bearing accounts subject to check may be opened either at Court Street or Temple Place, and the two offices used interchangeably for the transaction of your banking business.

You are cordially invited to inspect the modern Safety Deposit Vaults at either office.

OLD COLONY TRUST CO.

Main Office
Court Street

Branch Office
Temple Place

TECH MEN

Do you want a first class shave or hair cut—
Hair Cut 25c. - - - Shave 15c

First class work by competent barbers.

Pool and Billiard Room.

MAYNARD'S BARBER SHOP

at Garrison Hall

Near Tech Gymnasium

LOWELL INSTITUTE.

Two Courses of Lectures in Hunt. Hall Begin Today.

The fifth course of lectures of the Lowell Institute begins this evening at 8 o'clock, in Huntington Hall. This course of lectures, six in number, will be on William Wordsworth, and will be given by Emile Legouis, Professor of English Literature at the Sorbonne, in Paris, and Exchange Editor at Harvard University.

These lectures will be given every Tuesday and Friday evening for the next three weeks. The subjects for the six lectures are as follows: January 7, "Wordsworth's Early Years and Early Verse;" January 10, "The French Revolution, William Godwin;" January 14, "Dorothy Wordsworth and Coleridge;" January 17, "Wordsworth's Optimism;" January 21, "His Nature Worship," and January 24, "The Essentials of His Poetry."

The sixth course, given in Huntington Hall on Tuesday and Thursday afternoons, at 5 o'clock, also begins today. This course of six lectures will be given by Rudolph Eucken, Professor in the University of Jena, and Exchange Professor at Harvard, on "The Fundamental Problems of Human Life." The subjects of this course are: January 7, "A Justification of Idealism;" January 9, "A Deference of Morality;" January 14, "Religion and Philosophy;" January 16, "The Greatness of Kant;" January 21, "Goethe as a Philosopher," and January 23, "Realism and Idealism in the Nineteenth Century."

BEST PRICES

...On...

DRAFTING INSTRUMENTS, PAPERS, TRACING CLOTH, TRIANGLES, T SQUARES, SLIDE RULES, PENCILS, ETC. PAINTS VARNISHES AND HARDWARE.

222 CLARENDON ST.

ALSO

84 WASHINGTON ST.

Catalogues Free

Wadsworth, Howland & Co.

Incorporated

THE TECH UNION BARBER SHOP

Located at the

HOTEL WESTMINSTER

Handy to the Institute. Up-to-date fashionable hair cutting by skilful barbers. The best hygienic and most perfectly ventilated shop in the Back Bay. Special attention given to honing razors. Carefully selected razors for sale on a guarantee for one year.

Hoping you will convince yourself by giving us a trial, we are,

Yours very truly,

TECH UNION BARBER SHOP

COMMUNICATION.

To the Editors of THE TECH:

On passing through Rogers's corridor during the last two days, on my way to lectures, I have noticed a laurel wreath hanging over President Walker's bust. Upon inquiring I learned that the wreath has been placed in position by the Walker Club as a token of remembrance of our late President.

On the 5th of January, 1897, just 16 years ago, Francis A. Walker passed away. In his death the Institute lost one of the greatest men any educational institution ever numbered among its adherents. He was a man in every sense, loyal, patriotic, a faithful servant of the country and school, and in fact an ideal Technology man.

General Walker served a life of manifold duties, graduating from Amherst in the early sixties; he taught in various schools, edited the Springfield Republican, presided over various educational bodies, and after the resignation of Dr. Rogers, in 1881, became President of the Institute.

Francis A. Walker was a unique figure throughout his life, his breadth of view and broad-mindedness in ideas were always in advance of his contemporaries, and it is largely due to his undaunted efforts that technical education of the present day has reached such a high standard of excellence. Professor H. W. Tyler in his biography summed up General Walker's character in a remarkable way. He says: "The abundant measure of success achieved by President Walker in education may be ascribed largely to certain fortunate natural qualities which would indeed have contributed almost equally to insure him eminence in any other field of sufficient breadth. He was aggressive, but not intolerant; resolute in his own opinions, but appreciative of those of others. As head of the Institute of Technology he showed remarkable power of assimilating certain general principles underlying forms of technical work, which were in details necessarily foreign to him. Almost as remarkable and perhaps even more so was his power of securing the co-operation and cordially recognizing the best qualities of men of the most diverse temperaments. By every instinct of his nature he was broadly, wisely liberal. For the deep impression his liberality has made upon contemporary education, by example even more than by precept, we may be profoundly grateful."

Please accept my thanks for your kindness in granting me this space.

L. H. L.

CHEMICAL SOCIETY.

(Continued from Page 2, Col. 2.)

much of his research work. In this room Dr. Chafee performed an experiment to show the damped electric oscillations taking place in the aerial. He used an apparatus known as Braum's tube, in which a cathode ray is passed through an electrostatic field which is under the influence of the antenna oscillations. When the various apparatus was properly adjusted a spot of light from the ray traced out on a screen a sinusoidal curve of diminishing amplitude in a most beautiful and interesting manner. Many other forms of wireless instruments were on exhibition, and all present had a great privilege in being allowed to visit this laboratory.

The meeting then reassembled in the lecture room and, after a few announcements, Dr. Pierce and Dr. Chafee answered many questions. Then, after giving Dr. Pierce and Dr. Chafee a hearty vote of thanks for their kindness, the meeting adjourned.

The next meeting of the society will be held February 1st, in the Walker Building, when they will be the guests of the local society.

Do you patronize our advertisers?

DON'T BE SO LAZY!

Limber up and Stretch those muscles at the

Trinity Court Bowling Alleys

Right Across from the union. Come in after lunch, after dinner, anytime

A DOLLAR GOES TO THE MAN

with the highest candle pin score each day.

Come and Get it.



His Speech

He's becoming eloquent. Must be proclaiming the goodness and purity of Fatimas.

With each package of Fatima you get a pennant coupon, 25 of which secure a handsome pennant—Colleges, Universities and Fraternal Orders (12 x 32) selection of 115.

Ligarette & Cigarette Tobacco Co.



BOSTON OPERA HOUSE

MON., 8 to 11. Last appearance of Mme. Tetrassini. LA TRAVIATA. Tetrassini, De Courcy, Zenatello, Polese. Cond., Moranzoni.

WED., 7.45 to 11.15. PELLEAS ET MELISANDE. Edvina, Gay, Fisher, Riddez, Marcoux, Lankow. Cond., Andre-Caplet.

FRI., 7.45 to 11.45. LOUISE. Edvina, Gay, Barnes, Zenatello, Marcoux. Cond., Andre-Caplet.

SAT., 2 to 4.45. LA BOHEME. Bori, Dereyne, Laffitte, Polese, Mardones. Cond., Moranzoni.

SAT., 8 to 11.25. CARMEN. Gay, Donner, De Potter, Rossi. Cond., Strony. Popular prices.

SUNDAY ORCHESTRAL CONCERTS 3.15 to 4.45. 25c to \$2.

Jan. 12. Mme. Tetrassini, soloist. DOWNTOWN OFFICE, Steinert's, 162 Boylston.

Mason and Hamlin Pianos Used. Address Mail Orders to Box Office.

MAJESTIC THEATRE

Tonight at 8
Matinees Wed. & Sat. at 2.50

2 Weeks Only

HANKY PANKY

SHUBERT THEATRE

Even. at 8.15
Wed. and Sat. Matinees at 2.15

The Opera for which Mr. and Mrs. Cornelius Vanderbilt paid \$5000 to entertain the Smart Set at Newport

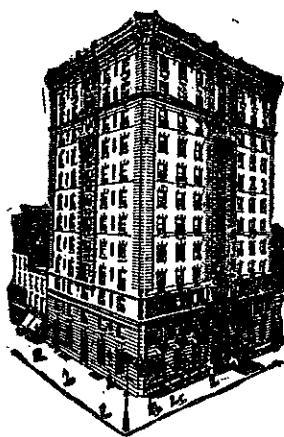
The Merry Countess

HOTEL CUMBERLAND

NEW YORK

Southwest cor. Broadway and Fifty-fourth St.

HEADQUARTERS FOR COLLEGE MEN
HEADQUARTERS FOR TECH MEN



HEPT BY A COLLEGE MAN.
SPECIAL RATES FOR COLLEGE TEAMS

Ideal Location, near depots, shops and Central Park

New, Modern and Absolutely Fireproof
Most Attractive Hotel in New York. Transient Rates, \$2.50 with Bath and up. Ten minutes walk to twenty theatres. Send for booklet

HARRY P. STIMSON
Formerly with Hotel Imperial.

Richard's School of Dancing

Class Night Monday 7:30 :: Socials 8:30

Private Lessons by appointment daily. Get the Tango and the Boston, the latest rage in Paris and New York. Get the One Step

TEL. CONN. Back Bay 6060.
30 Huntington Ave. :: Boston

Young Mens Hats

for Every Occasion

COLLINS & FAIRBANKS COMPANY

383 WASHINGTON STREET - BOSTON

Classified Advertisements and Notices

CLASSIFIED ADVERTISEMENTS AND NOTICES.

Faculty Notices, free.
Activities, 4c. per line.
Individuals, 10c. per line, 8 words to a line.

FOR PRINTING AND TYPEWRITING, we have the facilities and experience that puts us at the top in the point of speed, convenience and economy in Tech work. We have save some over half another's quotation. Before placing an order come to us for our price.

TECH TYPEWRITING BUREAU,
Opposite the Union, 39 Trinity Place.
(Mondays)

NOTICE.

1915 Class Officers' Picture at Notman's, 3 Park street, on Thursday, January 9th, at 1.15 P. M.

FOUND—A watch. Please apply at the Bursar's office. F. H. RAND. Bursar.

MID-YEAR GRADUATES—The more time you give us to typewrite your thesis the better will it be a worthy record of your greatest effort at Tech. Come in now to arrange a time schedule for this.

TECH TYPEWRITING BUREAU,
Opposite the Union, 39 Trinity Place.
(Tues-twice)

When in need of anything, no matter whatever it is, be sure and patronize our advertisers.

Old Established Dining Room

Mrs. H. O. Hanson, Prop.

33, SAINT BOTOLPH STREET.

21 Meal Ticket \$1.50 14 Meal Ticket \$3.50
7 Dinners . . . 2.50 7 Lunches . . . 1.80
Breakfasts 30c. Luncheon 25c. Dinner 40c

FACULTY NOTICE.

Fourth Year Hydraulics—Course II.

Sections 1, 4 and 5 will recite in Room 20, Engineering B, on Tuesdays, Thursdays and Saturdays, from 9 to 10 A. M.

Sections 2 and 3 will recite in Room 49, Engineering A, on Tuesdays and Thursdays, and in Room 21, Lowell, on Saturdays, at the same hour.

All sections should prepare articles 6 to 12 inclusive of Russell's Hydraulics.

WALTER HUMPHREYS,
Registrar.

SAY FELLOWS

We press, clean, repair and dye suits. Suits or overcoats sponged and pressed, 50c. Pants, 15c. Suits also made to order, \$15 up. Work will be called for and delivered. Telephone Back Bay 1754 M., or call at

St. James Tailoring Company

St. James Ave., cor Berkeley St.

The Original

TECH BARBER SHOP

Increased Business. Increased Help. Everything Sterilized.

Copley Square

Bootblack Manicure Second Floor

HERRICK, COPLEY SQUARE

Choice Seats for all Theatres

Phone B. B. 2328

Key Number Connecting Five Phones

Students' used clothing and other personal effects bought by

KEEZER

360 COLUMBUS AVENUE

(Near Dartmouth St.)

Highest prices paid for same.

TRC. 916. Phone Write or Call
Open Evenings to 9 o'clock



THE CHOCOLATES

THAT ARE DIFFERENT

FOR SALE AT THE UNION

SOMETHING

NEW CONTINUALLY.

All Goods Required by

Students at

MacLachlan's

502 BOYLSTON STREET

Drawing Instruments and Materials,

Fountain Pens Text-Books

Write Ideas for Moving Picture Plays

YOU CAN WRITE PHOTO PLAYS AND EARN \$25. OR MORE WEEKLY
We Will Show You How!

If you have ideas---if you can *think*---we will show you the secrets of this fascinating new profession. Positively no experience or literary excellence necessary. No "flowery language" is wanted.

The demand for photoplays is practically unlimited. The big film manufacturers are "moving heaven and earth" in their attempts to get enough good plots to supply the ever increasing demand. They are offering \$100, and more, for single scenarios, or written ideas.

We have received many letters from the film manufacturers, such as VITAGRAPH, EDISON, ESSANAY, LUBIN, SOLAX, IMP, REX, RELIANCE, CHAMPION, COMET, MELIES. ETC., urging us to send photoplays to them. We want more writers and we'll gladly teach you the secrets of success.

We are selling photoplays written by people who "never before wrote a line for publication."

YOU WILL EARN \$100 MONTHLY FOR SPARE TIME WORK.

FREE SEND YOUR NAME AND ADDRESS AT ONCE FOR FREE COPY OF OUR ILLUSTRATED BOOK, "MOVING PICTURE PLAYWRITING"

Don't hesitate. Don't argue. Write **NOW** and learn what this new profession may mean for you and your future.

NATIONAL AUTHORS' INSTITUTE

R. 688-1543 Broadway
NEW YORK CITY