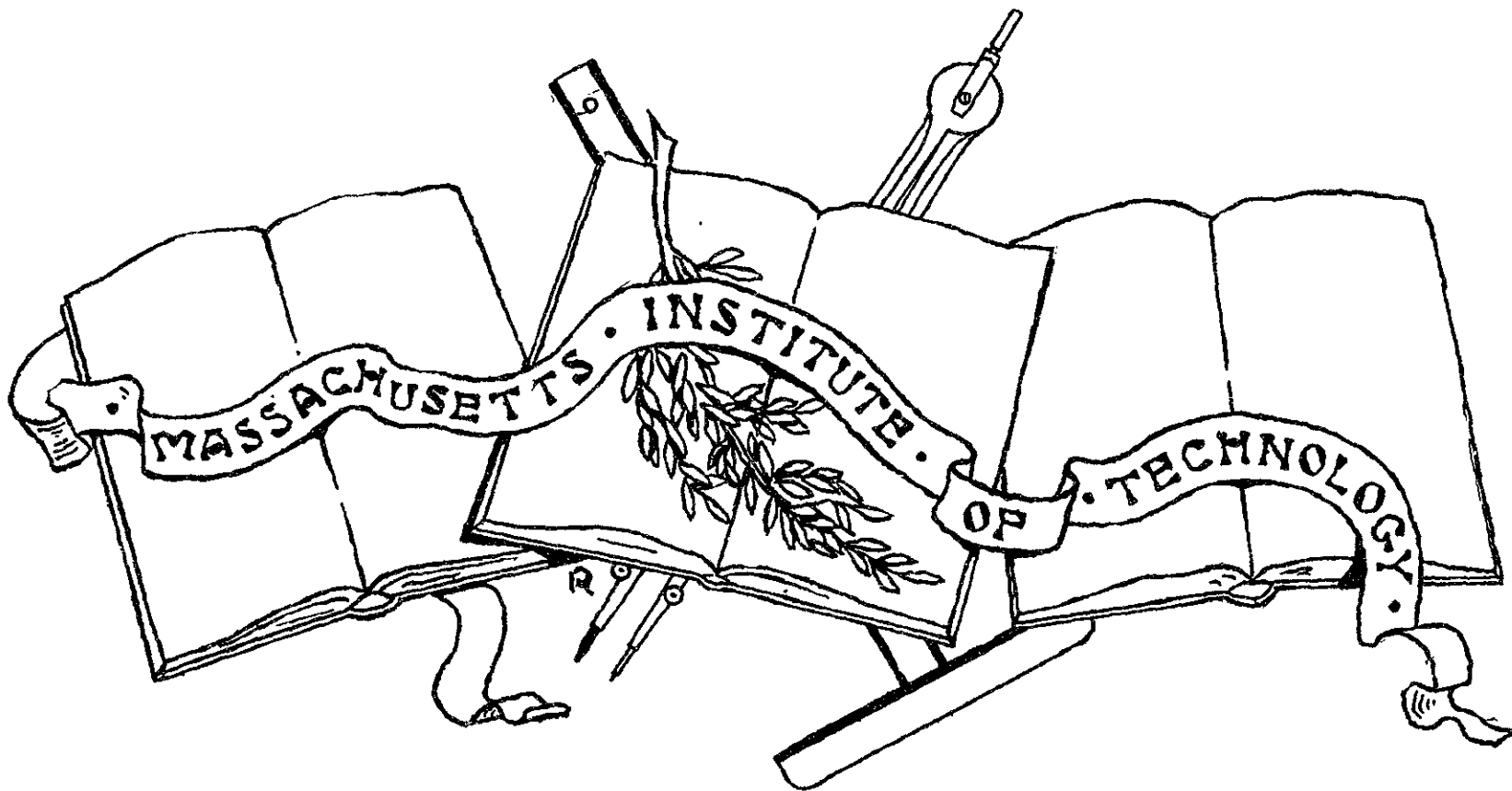
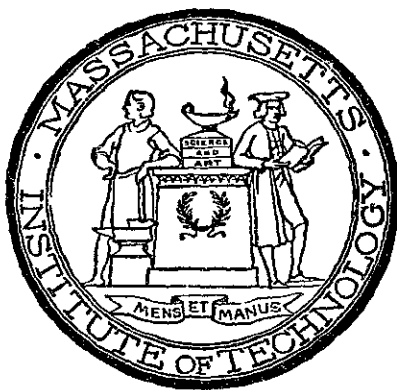




THE TECH



BOSTON, MASS.

VOLUME XVI.

NUMBER 24.

APRIL 15, 1897.



[(SUCCESSORS TO HASTINGS)]

146 TREMONT STREET,
BOSTON.

**Strictly High Grade
Photographs AND Portraits.**



Special Rates to all M. I. T. Students

**OAK GROVE CREAMERY COMPANY,
DAIRY LUNCH ROOM.**

445 BOYLSTON STREET, COR. BERKELEY, opp. Y. M. C. A. Building,

Where can be had Sandwiches of all kinds, Soups, Tea, Coffee, and regular Dairy Lunch.

EVERYTHING FIRST CLASS.

Pure, Fresh-churned Butter, in Quarter-pound Prints, 5 and 10 Pound Boxes. Pure, Fresh Milk and Cream, delivered in Glass Jars. Fresh-laid Eggs. Pure, Full Cream Cheese, American (plain), Sage, Neufchatel and Edam. All kinds of Fruit Ices.

NELSON L. MARTIN.

ALL GOODS REQUIRED BY STUDENTS AT

MACLACHLAN'S

214 CLARENDON STREET.

Fountain Pens, Text Books.

Drawing Instruments and Materials, etc.

Trinity Court Café
and
Dining Rooms

H. E. Sharpe, Proprietor.

European and American Plan. Table d'Hote Lunch, thirty-five and fifty cents, from 12 to 2.30. Breakfast, from 7 to 9, fifty cents. Dinner, from 6 to 8, sixty cents. Unexcelled cuisine. Choicest Wines, Liquors, and Cigars. Banquet Halls that will accommodate from three hundred to five hundred people, amply provided with reception, ante, and coat rooms. Orders for Refreshments or Banquets of any size promptly attended to. Decorations and service in the latest up-to-date style.

HALF PORTIONS SERVED,
ALSO SMOKING IN GENTLEMEN'S CAFÉ.

L. P. HOLLANDER & CO.,

SPRING FASHIONS.

YOUNG MEN'S CLOTHING AND OUTFITTINGS.

Exclusively our own make, SACK SUITS of Scotch Tweeds and Homespuns, \$18 to \$26. COVERT COATS, silk lined, from \$22 upward. FULL DRESS SUITS, \$40. TUXEDO SUITS, \$30 to \$35. KNICKERBOCKER SUITS and TROUSERS of Scotch and Irish Homespuns a specialty. NEW STYLES in HATS. NEW NECKWEAR, NEGLIGE AND FANCY SHIRTS.

202 to 212 BOYLSTON STREET AND PARK SQUARE, BOSTON.

THE HAT OF THE SEASON.



STYLE

PRICE,

1616

\$2.00.

Special 1616

has all the characteristics of a \$3.00 hat and costs but \$2.00.

SPECIAL ATTENTION

Given to Technology Uniforms.

THE LARGEST STOCK IN BOSTON OF

NOBBY SUITS AND OVERCOATS.

CONTINENTAL CLOTHING HOUSE,

COR. WASHINGTON AND BOYLSTON STREETS.

Haircutting, .25

Shaving, .15

Bootblacking attendance.

**OPPOSITE
TECH.**



Shampoo, .25

Razors Honed,
.25

Razors received by mail
or called for.

BRANCH OF HOTEL THORNDIKE.



J. C. LITTLEFIELD,

Tailor · and · Outfitter,

21, 23 BEACON STREET, BOSTON.

I can offer you a larger and more complete assortment than can be seen elsewhere, and at lower prices for the same qualities. Look in and examine my prices before placing your order.

GOLF BREECHES, RIDING BREECHES, AND DRESS SUITS A SPECIALTY.
DISCOUNT TO STUDENTS.

TRADE MARK

COLLINS & FAIRBANKS
CELEBRATED

HATS

SOLE AGENTS FOR HENRY HEATH'S AND A.J. WHITE'S LONDON HATS.

STYLES CORRECT
QUALITY UNEQUALLED

381
WASHINGTON ST. BOSTON

Wm. Brooks & Co.
Importing Tailors

15 MILK STREET.
OPPOSITE OLD SOUTH CHURCH.

LONDON OFFICE, 6 SAVILE ROW, W

BIRTHPLACE OF FRANKLIN.

BIRTHPLACE 1706.

THE LARGEST ASSORTMENT OF FOREIGN WOOLLENS SHOWN IN BOSTON

M. I. T. CO-OPERATIVE.

THE TECH

VOL. XVI.

BOSTON, APRIL 15, 1897.

NO. 24

THE TECH

Published every Thursday, during the college year, by students of the Massachusetts Institute of Technology.

CHARLES-EDWARD AMORY WINSLOW, '98, *Editor in Chief.*
CLARENCE RENSCHAW, '99, *Assistant Editor in Chief.*
THOMAS EDDY TALLMADGE, '98, *Secretary.*
HARRY DRAPER HUNT, '97.
MORRIS KINNARD TRUMBULL, '97.
WARD WELLINGTON WARD, '98.
HAROLD WELLINGTON JONES, '98.
GEORGE REED WADSWORTH, '98.
WILLIAM EATON WEST, '99.
GERALD MARTIN RICHMOND, '99.

W. R. STRICKLAND, '98, *Business Manager.*
E. R. SHEAK, '99, *Ass't Business Manager.*

Subscription, \$2.50 per year, in advance. Single copies, 10 cts. each.

For the benefit of students THE TECH will be pleased to answer all questions and obtain all possible information pertaining to any department of the College.

Contributions are requested from all undergraduates, alumni, and officers of instruction. No anonymous manuscript can be accepted.

Frank Wood, Printer, 352 Washington Street, Boston.

Entered in Post Office, Boston, Mass., as Second Class Matter.

THE great week of the year for all Technology, and the great week of four years for the Class of '98, is almost upon us. Monday, Tuesday, and Wednesday form our transitory Easter vacation. On Thursday, "Technique" comes out; in the afternoon the reception to the Prom. guests will be held at the Technology Club; and in the evening comes the Prom. itself. On Friday afternoon the editors of THE TECH give a little reception to their friends in THE TECH office, and in the evening the Walker Club play is given in the Bijou Theatre. Saturday evening the festivities close with the concert of the musical clubs in Association Hall.

TECHNIQUE will appear at noon Thursday, April 22d. Thanks to the exceptionally fine volume gotten out by '97, the editors of the '98 annual seem to entertain no fear re-

garding its sale among the upper classmen; the orders from alumni already surpass all records. For the benefit of the Freshmen, however, it can truthfully be said that "Technique" is the acknowledged leader of all college annuals, and for that reason alone, aside from any patriotic desire to support a college production, each member of 1900 should purchase at least one copy or, better still, several for his friends.

We have heard it whispered that the editors have no cause this year to be ashamed of the results of their labors, and, although they have been forced to follow the lead of the '96 Board in putting the price up to \$1.25, we feel sure that they need experience no uneasiness as to the reception of the book on that score, for we understand that the volume has cost, in production, more than four times its selling price per copy. "Technique," as the one undergraduate undertaking in which the Institute stands absolutely supreme over all other colleges, should have the heartiest support of every Tech. man, regardless of class.

THE mass meeting last Friday was a rousing success. No athletic event in the history of Technology has ever called out such a large proportion of the students, and many of the Faculty were present, who up to this time probably never knew there was such a thing as a Track Team at the Institute. Although we join with Mr. Lansingh in deprecating appeals to the Faculty for financial aid, it appears to have been absolutely necessary in this particular case, and the energy and devotion which have enabled him to raise six hundred dollars in about two weeks can scarcely be spoken of too highly. The Athletic Association is now well on its

feet financially, and six weeks of hard, conscientious work is all that we need to put the team in the front rank at Worcester.

THE Musical Clubs deserve hearty support this year. In face of the impossibility of obtaining Huntington Hall, their resolve to give the Home Concert across the way is highly commendable. Every Technology man ought to show the management that this is a feature of Junior Week we should be very sorry to have omitted, as we feared at one time it might be this year. The tickets for the concert are in the hands of the various members of the Clubs, and may be obtained from them.

WE note with pleasure the proposition which is on foot for the organization of a Mechanical Engineering Society. It is proposed to model the society upon the same general lines as those of the Electrical and Civil Societies, and there is no reason why it should not attain equal or greater success. Course II. has long been one of the largest, if not the largest, in the Institute, and if the men can only be made to realize the benefits of such an organization there is no doubt that sufficient interest and enthusiasm will be aroused to make the plan an assured success.

THE '93 Class Book, published on the occasion of the Class dinner, is a neat pamphlet of some sixty pages, with a cover in the Institute colors. It contains, in brief, the class history, an editorial department containing edited answers to questions sent out by the committee which we have already discussed, statistics in regard to membership, salary, etc., and a complete record of the occupation and address of every member, together with lists of previous officers of the class. The book fills admirably the position for which it was intended, namely, a com-

plete record of the class as a whole, and by individuals, in both the past and the present. The spirit in which it has been received by the class is shown by its vote to make it an annual publication, while its estimation by others is evident from the intention signified by several classes to issue similar books. That others may not be prevented from financial reasons, it may be said that the advertisements alone nearly paid the cost of publication.

Typical Theses.

COURSE V.

[The subject of this Thesis is "The Preparation of Silicic Ether and its Action on Organic Acids." By G. H. Pratt.]

ONE of the many important applications of electricity is the electric furnace, and one of its many uses is as a means of obtaining high temperatures to effect chemical reactions which cannot be carried out at lower temperatures. Within a few years the reduction of quartz by powdered charcoal has been carried out, and crystalline silicon thus obtained. This crystalline silicon, when heated in the electric furnace with copper combines with it to form a homogeneous steel-gray compound which is silicide of copper, and may be represented by the formula Cu_2Si . This compound has been used in this thesis as a means of obtaining the tetrachloride of silicon ($SiCl_4$).

Up to the present time all processes for obtaining the tetrachloride of silicon have required very high temperatures, and the use of rather expensive materials, and it has been left for the metallic silicides to furnish a cheap and ready means of preparation. The silicide of iron, ferro-silicon, has been decomposed by chlorine to give this product, and in this thesis the copper silicide has been used. The silicide when heated in a stream of dry chlorine is decomposed even as low as at $300^\circ C.$, giving rise to a liquid product which, after freeing from chlorine, is colorless, and boils at $58^\circ C.$ This product decomposes very

readily with moisture, so has to be kept protected from all moisture by calcium chloride tubes. The yield obtained is very good, and the process is without doubt as good as any yet suggested.

The silicon tetrachloride thus obtained was next transformed to the silicic ether ($\text{Si}(\text{OC}_2\text{H}_5)_4$) boiling at 167°C ., by treatment with absolute alcohol and subsequent fractionation. This product is also rather sensitive to moisture, so is kept in sealed tubes.

The next work on the thesis was to try to get esterification of organic acids by a new reaction; namely, by heating the acid with a corresponding amount of silicic ether. The reaction which it was hoped would take place was of the type $2\text{C}_6\text{H}_5\text{COOH} + \text{Si}(\text{OC}_2\text{H}_5)_4 = 2\text{C}_6\text{H}_5\text{COOC}_2\text{H}_5 + \text{C}_2\text{H}_5\text{OH} + \text{SiO}_2$.

This reaction has succeeded with several acids, when they were heated in sealed tubes to 183°C , and the next work will be to find out at what temperature the best results can be obtained, and also to find out the amount of esterification at lower temperatures. After this, the reaction will be tried on a class of acids which do not form esters by the regular method of esterification, to see if they cannot be obtained by this reaction. Further work will also be done on the metallic silicides with regard to the temperatures at which they can be decomposed by chlorine.

Programme of the Geological Club.

THE following are the papers to be presented at the Friday afternoon meetings of the Geological Club during April and May:—

April 9th by Prof. W. O. Crosby; subject, "The Old Potsdam Seashore, or the Contact between Archæan and the Potsdam Strata in the vicinity of Manitou, Col."

April 16th by Mr. M. L. Fuller, S.B., '96; subject, "Certain Peculiar Features in a Glacial Boulder Train in Braintree, Mass."

April 23d by Mr. Chas. S. Hürter, '97;

"Geological Observations in Northern Michigan."

April 30th by Mr. J. B. Woodworth, of the Harvard Geological Department; subject, "Joints and Joint Structure." Mr. Woodworth's talk will be illustrated by lantern views.

May 7th by Mr. A. W. Grabau, S.B.; subject, "The Physical Geography and Scenery of New York State." (Illustrated by views.)

May 14th, subject, "What is a Drumlin?" Prof. W. H. Niles, Prof. W. O. Crosby, Prof. G. H. Barton. Other members of the Club will also speak on the subject.

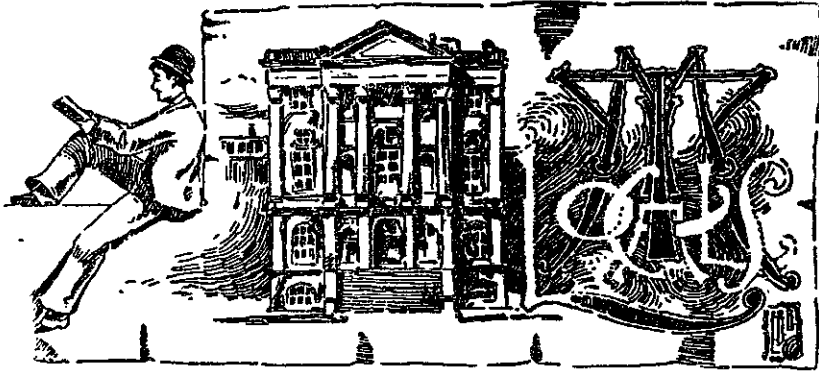
All the students of the Institute are invited to attend.

The Technology Play.

THE advance sale of seats for the Play has been large, and everything points to a financial and social success. Nevertheless, there are many good seats still to be had, every one of which should be sold by the night of the Play. "Dandy Dick" is, without doubt, the most laughable comedy ever produced by Technology men. It treats of the doings of a Deanery household and the affairs of the race course, and the characteristics of each circle are portrayed by Rev. Augustin Jedd and his sister, the redoubtable "George Tidd." The cast, as shown below, is a remarkably promising one.

CAST.

The Very Rev. Augustin Jedd, D.D., Dean	
of St. Marvel's	E. N. Curtis, '98.
Sir Tristram Mardon, Bart	H. L. Morse, '99.
Major Tower	{ —th Hussars quartered at Dumstone } R. Allyn, '98.
Mr. Darbey	{ near St. Marvel's } W. Kendall Fairbanks, '97.
Blare, butler at the Deanery	C. F. Drake, '97.
Noah Topping, constable at St. Marvel's,	C. E. Lord, '98.
Hatcham, Sir Tristram's groom	S. H. Crittenden, '00.
Georgiana Tidman, a widow, the Dean's	
sister	O. C. Hering, '97.
Salome	} the Dean's daughters { Durand Mayer, '98. Godfrey L. Smith, '98.
Sheba	
Hannah Topping, formerly in service at	
the Deanery	A. C. Lamb, '97



The directors of the Co-operative Society are busy getting out the lists of tradesmen for the '97 handbook.

The Freshman Class has finished Heine's "Harzreise," and has taken up "Egmont," an historical drama by Goëthe.

The past and present Editors and Directors of THE TECH are to have a Reunion and Dinner at the Technology Club on Wednesday, the 21st.

The Class-day Committee has requested that all those having Class-day parts will be ready to present their papers before it on May 15th.

Mrs. R. H. Richards gave a pleasant reception to the Third-year students of Sanitary Chemistry on Monday, the 5th, at her home in Jamaica Plain.

Mr. G. E. Lynch, '99, will describe a trip through Mexico at the meeting of L'Avenir to-morrow afternoon, and will exhibit a number of photographs taken by himself in that region.

The Physical Laboratory has just received a new cathetometer with two telescopes made by the Societ  Genevoise. It was purchased from the income of the Katharine Bigelow Lowell Fund.

At the last meeting of the Biological Club on Friday, April 9th, papers were read by Dr. E. G. Gardiner on "The Reduction Theory of the Chromosomes," and Mr. H. W. Marshall on "Experiments on the Embryonic Heart."

Tickets for the Intercollegiate Drill and Dance will be on sale in Rogers corridor

from now until the date of the drill. Persons ordering tickets by mail, address Chairman Drill Committee, Massachusetts Institute of Technology, Boston.

The tickets for the '98 "Technique" were placed on sale at Maclachlan's yesterday at \$1.25, and the books will be given out as before stated, in Rogers corridor next Thursday. The "Yeller Kid" poster which advertises the book is a decided hit.

The Technology Wheelmen held a short meeting at the Gymnasium on Saturday, April 3d, at two o'clock. Prof. C. H. Peabody was elected an honorary member, and Mr. Frank D. Chase, 1900, an active member. After the meeting, all members present, including Mr. C. H. L. N. Bernard, went for a short spin to Riverside and return. Another short run will be held next Saturday, to start from the Gymnasium at 2 P. M.

After one week of actual playing the material composing the Freshman Baseball Team may be fairly criticised. Although the results of the first games may not be encouraging, the Freshmen losing by one run each time, yet the improvement of some of the men was far from discouraging. The infielding is excellent, Gauss on second base and McDonald on third putting up a fine game. Dart does the best work in the out field, and made several good catches and throws last Saturday. The pitching is rather poor and the batting of most of the men is wretched. Before the team can hope for success this weak point must be strengthened.

Last Wednesday a party of sixteen Technology men, chiefly Course XIII., went out on the tug Sylvester L. Ward, in company with Mr. N. L. Stebbins, to watch the finish of the official trial trip of the new United States battleship Iowa. The tug, after waiting for her, ran down to the finish-line, which was off Rockport, abreast of the Iowa, and several good photos were taken. The party had a very good view of the beautiful battleship

both while at full speed, raising an enormous bow wave, and at anchor afterwards. Also, as the United States torpedo boat No. 6 was the finish stake-boat, the party had a very good look at her, both at anchor and running about twenty knots.

The Architectural Society, famous for its *bonhomie* and good dinners, held the most elaborate dinner in its history, April 6th, at the Castle Square Hotel. The guest of the evening was Mr. Longfellow, a well-known architect of this City, and a nephew of the poet. Mr. Longfellow chose for the subject of his address, "The Life of the Student at the Ecole des Beaux Arts." Mr. Longfellow read a number of his letters written home from Paris, when he was himself at the Beaux Arts. Professor Chandler, Professor Homer, Professor Despradelles, and Mr. Ross Turner, all favorites of the Society, followed with bright remarks and stories. Mr. T. E. Tallmadge, '98, officiated as toastmaster.

The Mass Meeting.

THE greatest athletic demonstration Technology has ever seen occurred at the mass meeting last Friday. Almost every seat in Huntington Hall was filled, and the presence of nearly all the members of the Faculty and of a delegation from Smith College lent particular eclat to the occasion. Several long tables on the platform were covered with the cups and medals which were on exhibition in the corridor during the week, and behind them sat Professor Sedgwick, Trainer John Graham, and some of those athletes who have done Technology's name honor in the past with those who are carrying on their good work to-day.

Captain Grosvenor called the meeting to order, and briefly outlined the prospects of Tech. at Worcester and Philadelphia.

Secretary Mayer read the minutes of the last meeting, and then Treasurer Lansingh made his report. He stated that a few weeks

ago the Association was in debt to the extent of nearly two hundred dollars, and needed four hundred more to send the team to the two coming meets. All this money has been obtained: two hundred dollars by collectors among the students; four hundred dollars, by Mr. Lansingh's personal efforts, from members of the Faculty and Corporation. The report showed a final balance in the treasury of \$467.04, sufficient to keep the Association clear for the rest of the spring.

Before closing, the Treasurer said that, while recourse was had to outside aid in this emergency, henceforth the money required to support a team must be raised among the undergraduates.

Mr. Lansingh was then given a rising vote of thanks for his remarkably energetic and successful work.

Professor Sedgwick then spoke of the value of mass meetings in uniting the students of a professional school like the Institute. He hoped for the future success of the Athletic Association, and, in conclusion, proffered the congratulations of his colleagues of the Faculty. John Graham told of the good work that the team is doing at the present time. He spoke of the high standard of amateurism set by the Greek athletes, and deplored over-confidence and teams "sure to win." Benj. Hurd made a short speech, the best part of which was the news that he is coming out to train for the hurdles. T. P. Curtis, of '93, gave a rattling address, in which he paid a glowing tribute to Captain Grosvenor. F. W. Lord, '94, then said a few words on the subject of the hard work needed to turn out a winning team, and the meeting adjourned.

A Proposed Mechanical Engineering Society.

A MEETING to consider the advisability of organizing a mechanical engineering society was held by the Junior Course II. men on April 9th. The matter was placed in the hands of a committee consisting of Messrs.

Allyn, Coburn, Hutchinson, Philbrick, Riley, Robinson, and Shedd, all of '98, who will investigate it carefully, and, when ready to report will call a meeting of the mechanical engineering students of the three upper classes.

It is felt that there ought to be such an organization in the department, but, though several have been started in years past, for some reason, none have endured. The present movement cannot hope for success, unless '98 and '99 men are ready to give it firm support, attend the meetings, and take a proper interest in performing such work as may be assigned.

The members of the committee will be deeply obliged for honest expressions of opinion from those interested, whether written or verbal. It will be useless to organize unless hearty co-operation can be assured.

Electrical Engineering Society.

AT the April meeting of the Electrical Engineering Society, held last Friday evening, the programme consisted in the discussion of the theses of a number of the Senior members. The men told the objects which they sought to accomplish, outlined their methods, and told of the difficulties which they had met. The discussions were illustrated by diagrams, and in some cases lantern slides and experiments. Those who spoke, and their subjects, were as follows: Mr. Howard, on "Test of an Induction Potential Regulator at the Carborundum Works, Niagara"; Mr. Eames, "Design for a Three-Phase Wattmeter"; Mr. Maguire, "Study of the Primary Current of a Transformer"; Mr. Gilmore, "Disruptive Tests on Insulation"; Mr. Shuman, "Test of an Induction Motor"; Mr. Reed, "Test on Two Rotary Transformers"; Mr. Ferris, "A New Method of Determining Wave Forms"; Mr. Taylor, "Study of Rectified Alternating Currents." In addition to these, Mr. Curtis, of Course XIII., gave an interesting description of his thesis with Mr. Daniels, on the "Stability of Battleships."

A First Glimpse of the Yosemite.

BY GORHAM DANA, '92.

IT was nine o'clock on a morning in May when we left the stage, eleven miles west of the Yosemite Valley, and started to walk into the valley over the Glacier Point road.

My companion had been by this route on horseback some years before, and thought it a pleasant one. The main road enters the valley at its lower end, where the more gently sloping sides make it comparatively easy of access; but the Glacier Point road winds high up in the mountains, and comes out at the brink of the precipitous walls at the upper end of the valley.

The stage driver said that the road had not been opened for the season as yet, although it would be in a few days; and, although we should probably find some snow, we could undoubtedly get through easily. Acting on this advice we put on our tramping shoes, stowed away a little lunch in our pockets, and, sending all the rest of our luggage except our cameras on the stage, set out for a supposed twelve-mile walk.

The road struck off into the forests on a gentle up grade. After about five miles of easy climbing we came upon snow, at first in a few isolated patches, the remnants of some huge drifts. These grew thicker and larger as we proceeded, until finally the whole road was covered with snow. It now, of course, became very difficult to find our way, and we thought a little of turning back, but finally persisted. The snow became deeper as we proceeded, until at last we found ourselves lost in a pathless, snow-clad forest. We had a small map of the region and a pocket compass, and with these we shaped our course as best we could. The snow was well compacted, but at the surface, where the sun's heat had taken effect, it was soft, so that we sank in about two inches at every step. This made the walking slow and tiresome, besides wetting our feet thoroughly. We followed up the mountain, selecting long openings in the trees, hoping that they marked the course of the road

beneath. We kept on blindly for over an hour, when we came to a slight opening in the snow where we found traces of wheels, and knew we must be on the right track. We crossed the three forks of the Bridal Veil creek on arches of snow that we supposed marked the location of bridges. Soon after this the road struck off onto the side of a steep mountain, where it was easy to follow. Enormous drifts, some of which must have been twenty-five feet deep, occurred in places, but between them the ground was bare.

It was now one o'clock. We had eaten nothing since 6 A. M., and were beginning to feel faint in consequence. Our pedometer registered fourteen miles, but still we saw no signs of the great valley. Our feet were wet through and very cold. We had no overcoats with us, and the air, none too warm under the noonday sun, was now chilled by rapidly gathering clouds. We thought it almost the last straw when snowflakes began falling, increasing rapidly until we were enveloped in a blinding storm. After some discussion we decided to stop and eat our lunch. We sat shivering on a log for a few minutes, but the cold soon forced us to start on again. We finished our frugal repast afoot with the snow falling thick and fast around us.

But the worst was yet to come. We suddenly reached a divide, and the road turned off abruptly into a level, snow-clad forest. Here we again lost all traces of it, and wandered hopelessly on, not knowing which way to turn. The map did not help us, as we had long since found that it was inaccurate, and had entirely lost our location upon it. We thought, however, that the valley was probably to the northeast of us, and in that general direction we accordingly set out. We wandered on for over an hour, the snow still falling thickly about us, without seeing any signs of the road or of the valley. It was getting late. Darkness would soon overtake us, and we should be left in the boundless forests.

(To be Continued.)

Ninety-three Class Dinner.

ON Saturday, April 3, the Class of '93 held its fourth graduate dinner at the Parker House, with some thirty members of the Class present. Previous to the dinner a business meeting was held, at which, aside from the election of officers and routine business, it was voted to issue the Class book annually, and to establish an assessment of \$1.00 for that purpose. The Class then adjourned to the dining hall, where the regular programme was most satisfactorily discussed. It was late in the evening before the toastmaster, Mr. Richmond, finally started the speechmaking and aroused the good feeling which maintained throughout. Prof. Fred P. Emery of Dartmouth, formerly of M. I. T., and an honorary member of the Class, was the guest of the evening, and spoke forcibly on "The Strength and Weakness of a Technical Education." Among the questions discussed, that of furthering social life at the Institute, was the most prominent. One suggestion in this respect was to make a center of social life, by undergraduates, taking rooms in one house or neighborhood, and having a common reading room, etc., for all. Mr. Bemis recommended building a club house, and establishing an undergraduate club, after the plan of those at Harvard and elsewhere, to be controlled by a board of overseers.

During the progress of the dinner a Western Union Messenger in uniform delivered numerous telegrams, which were read at intervals by the toastmaster. These were congratulations and regrets at unavoidable absence, purporting to come at first from distant members of the Class, then working up through Instructors, Professors, Governor Wolcott, and ending with President McKinley. It was some time before the ruse was discovered. Every member of the Class received a copy of the long-heralded Class-book, of which announcement is made in another column. The merriment of the evening was prolonged, and it was midnight before the company finally dispersed.

EVERYTHING NEW AND STYLISH.

Spring Clothing.

COVERT CLOTH SPRING OVERCOATS,

Strap Seam 33 inches long.
 Strap Seam 36 inches long.
 Welt Seam 38 inches long.
 Also with Patch Pocket

Also, Black Worsted, Vicuna Mills.

Our \$12.00 Overcoat is as good as most men will care to wear.

We have them also at \$5.00, \$7.50, \$10.00, \$15.00, and \$18.00.

“TAILOR-MADE” SUITS.

Elegant Styles and patterns, in fancy plaids and checks, Staple Mixtures and Serges . . .

We are particularly strong in our \$10.00 and \$15.00 lines, many of them being equal in quality, fit and style to suits sold elsewhere for \$15.00 and \$20.00. Made from finer goods, \$18, \$20, \$22. They are full of style.

It will pay to call and examine our styles, qualities, and very low prices. They are unequalled.

Don't Forget Our Location. We are in the Wholesale District. Open Saturday Night.

Spitz Bros. & Mork, . . . 67 & 69 Summer St.

T. E. MOSELEY & CO.,

Fine Shoes.

Spring Goods now ready. All the latest styles in Black, Tan, and Patent Leather. Co-operative discount to Technology.

T. E. MOSELEY & CO.,

469 Washington Street = Boston.

BIKE and GOLF SUITS.

L. A. W. Gray, Blue, Black, Fancy Plaids, Checks and Mixtures. Made in Regulation and Golf Styles.

We carry a very large line of our own manufacture. We sell CLOTH to match for Ladies.

OUR LEADERS.

BIKE SUITS (Fancy Plaid) . . . \$3.75
 L. A. W. GRAY BIKE SUITS . . . \$4.00
 BIKE SUITS (Fancy Plaid) . . . \$5.00
 GOLF SUITS, “ “ . . . \$5.50

Strong Materials, Stylish Patterns.

THE BIGGEST BARGAINS IN BOSTON.

Prove the truth of this statement by examining them for yourself.

A large line of COMBINATION SUITS, viz.: Regular Business Suit, with extra Golf or Bike Pants.

The Yacht Club.

A MEETING of the Yacht Club was held on April 6th to consider the advisability of racing off Newport about June 29th with the Harvard and the Yale Yacht Clubs. After some discussion the matter was referred to a committee composed of Messrs. Swasey, Sturtevant, and Field, which is to take such action as it may deem fit after having ascertained how many of the boats belonging to the Club can be counted upon to take part in such a race. This committee will also make out the schedule for the Club cruise.

It was voted to have the next dinner on May 8th, and Messrs. Swasey, Howard, and Winslow were appointed a committee to make the necessary arrangements.

The Club “shingles,” which are now out, are of very attractive and appropriate design. The device at their head consists of a gilt anchor, upon which is a circular shield, bearing the white T of the Club with its blue star.



'71. Mr. Henry M. Howe has been elected to the chair of Metallurgy at Columbia.

'72. The class of '72 held its first reunion since graduation at Young's Hotel, on Monday, April 5th, thirteen members of the class being present, some coming from as far as Buffalo. After so long a separation Technology's Alumni of '72 thoroughly enjoyed a most informal and pleasant gathering. Prof. C. Frank Allen, who has been Secretary of the class since graduation was re-elected to that position for the ensuing twenty-five years, and the members present further decided to hold reunions in the future every year instead of making the gatherings quarter century events.

'84. Arthur J. Purinton, Course II., has lately accepted the position of Secretary of the New England Engineering Co., of Waterbury, Conn.

'87. Edward G. Thomas, Course II., has recently assumed the general management of the Thomas Automatic Weighing Machine Co., of Boston.

'91. Arthur E. Hatch, Course I., has severed his connection with H. R. Wellington, with whom he has been engaged, and has become connected with the Bay State Dredging Co.

'93. Parker H. Wilder, Course VI., who was graduated in Course VI., has adopted a career in journalism, and has recently been elected Vice President and General Manager of the *Commercial Tribune*, of Cincinnati, O.

'96. Augustus J. Bowie, Jr., Courses II. and VI., has accepted a position with the Sacramento Power and Light Co., of Sacramento, Cal.



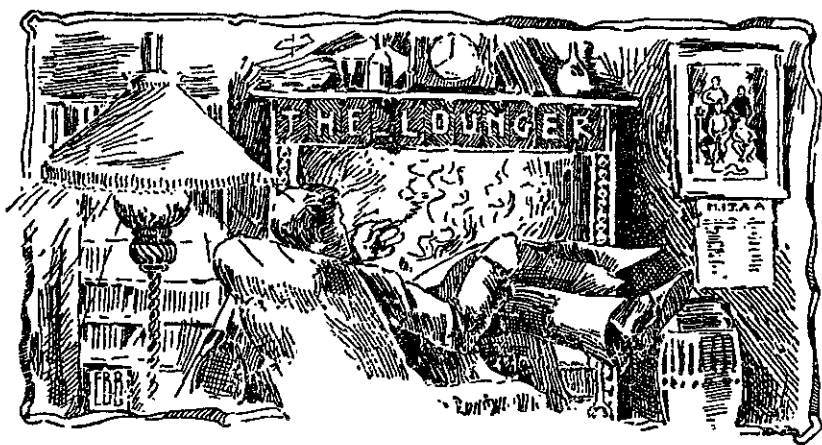
The suits for the 1900 Ball Team will be ready to-morrow.

The Tennis Courts ought to be put in shape for the spring tournaments soon.

The Freshman nine was defeated in its first game of the season with Somerville High School at Somerville on the 7th. The score was 8 to 7, only eight innings being played. The pitching for 1900 was rather poor and both sides made many errors.

The 1900 Baseball Team played its second regular game on Saturday with the Brookline High School nine. 1900 lost the game by a score of 5 to 6 through wild pitching and a few costly errors. MacMasters pitched for the first five innings and then Cotting pitched for the rest of the game. Osgood did the best batting for 1900 and Cotting the best work in the box. Considering the fact, however, that MacMasters had never pitched before last Saturday's game he showed up very well and will bear watching.

The second match game of Battle Ball with Harvard, was played in the Gym. Saturday night before a small but enthusiastic audience. It was evident from the start that the Harvard team was in much better form than they were when last they lined up against Technology. Before calling the game Instructor Boos gave a brief explanation of the rules governing the contest. The Tech. team was composed of High, Delano, and Hopkins, guards; and MacMasters and Mayer, throwers. The first half ended 67-66 in Harvard's favor. Copp took MacMasters' place in the second half. Harvard increased her lead in this half and won by a total score of 170 to 164.



THE athletic boom has kept on booming. The Lounger makes this statement without reservation or qualification; for what but a boom, and that of the loudest description, could have called together that astounding concourse that filled Huntington Hall to overflowing last Friday? The greasy grind, the pallid sport, the slumberous architect were there. The forge fires were left to burn themselves out, the Emery testing machine was given a half hour's rest, the little kettles of the chemist were allowed to boil away without restraint. The Faculty was out in force, and even the Secretary and the janitor's boy forsook their respective tasks, and hastened to swell the throng.

It was a cheerful and enthusiastic crowd, also, and bore with patience the long list of collectors and contributors, even extracting some amusement from the smaller sums. All this may have been scarcely so pleasant for the donors themselves, the exact amount of whose munificence was thus announced before their faces, but it gave an opportunity to test the relative popularity of the members of the corps of instruction. Judging by the quantity of vociferation, Monsieur of the Initials and the Knight of the Purse are close rivals for the favor of the barbarous multitude.

One pleasant feature of the meeting was the extreme good feeling which appeared to prevail among the gentlemen on the platform. First Mr. A. got up and said what a fine man he considered Mr. B. Mr. B. then rose and declared in a few well chosen words his admiration for Mr. C. Mr. C. next dilated upon the remarkable virtues of Mr. A., and altogether it was a very pleasant family affair indeed. The Treasurer of the Association was, of course, the particular hero of the occasion. In the course of this newest light in the Technology firmament the Lounger has been much interested of late. It has been a puzzling question to him to discover to which of two causes the increasing length of hair and beard, so alarmingly noticeable, is due. Are the duties of an

athletic Treasurer so arduous that he can find no time for the periodical abbreviations of his hirsute adornments which the canons of good society prescribe?

Certain it is that past Treasurers of the M. I. T. A. C. have not found their labors so absorbing. Or, like the strength of Samson, has political *pull* mysterious connection with length of locks? This would explain the fact that the popularity and the beard of the individual in question have increased *pari passu*. The Lounger, therefore, bestows his benison upon "the most popular man in Technology," for whom, if he carefully eschews the striped pole, a first marshalship may be waiting next year.

The Lounger was somewhat surprised last week to note an aching void about the table where the Walker Club tickets are dispensed, instead of the usual interested circle. It occurred to him at first that perhaps one of the improper posters of the Club had caused a boycott. He soon perceived, however, that it was only the presence of a rival attraction that had caused the old favorite to be discarded. The Freshmen had begun the sale of tickets for their war-like festivities at the close of the season, and a regular bargain counter rush was the result. As usual, the deadly fascination which the panoply of horrid war always exerts was proving quite too much for the soberer charms of the dramatic muse.

What the Institute of Technology really needs is a lot of nice new societies; at present there are not quite enough for every man to be an officer. The Lounger was, therefore, pleased at the idea of a mechanical engineering society, and dropped in at the organization meeting the other day to see how the plan was getting along. From one of the speeches he learned that the projected organization will, indeed, be an acquisition. The gentleman in question was urging that only upper classmen should be eligible, and cited the Technology Club as an example of the good effects of such a rule. He added that he wished to make the new society very select indeed, "not like the Hammer and Tongs." Now, of course, the Lounger does not know how things are run in these degenerate days. But when he was a Junior the Hammer and Tongs was considered quite one of the most exclusive of the professional societies (except, perhaps, the Architectural Society, whose members, as all gentlemen of leisure, might take precedence), and the Lounger is sorry to hear that it has lost its old prestige.

Established 1828.

CHAUNCY-HALL SCHOOL

HAS LONG MADE A

SPECIALTY OF PREPARATION FOR
TECHNOLOGY.

REFERENCE is made to the President and Secretary of the Institute in regard to the thoroughness with which Chauncy-Hall pupils are fitted, not only for entering the Institute, but also for pursuing successfully their subsequent work. Preparation also for business and for college.

Regular Grammar and High-School
Courses, fitting for Business
and for College.

458 Boylston Street, - - Boston, Mass.

(OPPOSITE THE INSTITUTE)

TAYLOR, De MERITTE & HAGAR,
PRINCIPALS.

LEYLAND LINE BOSTON AND LIVERPOOL

THE LOWEST RATES CROSSING THE ATLANTIC.

These Steamers are appointed to sail from BOSTON EVERY WEDNESDAY, from Pier 6, Boston and Albany Docks, East Boston, and from LIVERPOOL EVERY SATURDAY.

These new and immense steamships are the largest vessels sailing from Boston, and have a limited number of staterooms for first-cabin passengers at very moderate rates. No steerage carried. The staterooms are large and roomy, and are located on the top, or Bridge Deck, thus insuring the best of ventilation. For passage, cabin plans, etc., apply to

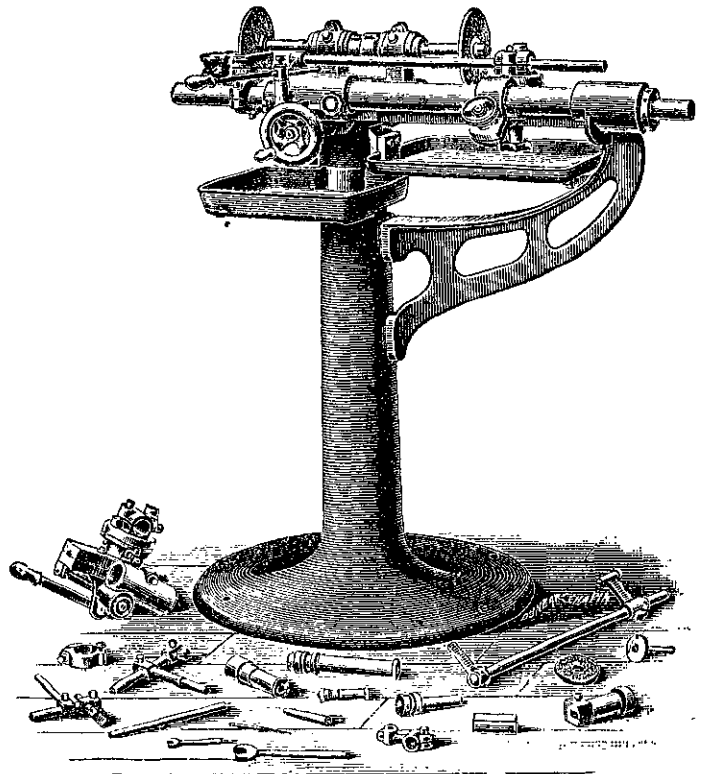
F. O. HOUGHTON & CO.

General Passenger Agents,
115 State Street, corner Broad Street, BOSTON.

The Adams Cable Codex, a Cipher Code; the most complete publication of its kind issued for Circulation among Travelers.

BROWN & SHARPE MANFG. CO., PROVIDENCE, R. I.

MACHINERY AND TOOLS.



No. 3 Universal Cutter and Reamer Grinder.

"Its simplicity, wide range of adaptation, and economy of time in use, commend it very strongly to progressive men in our line of business."
THE MERGENTHALER PRINTING CO."

Special Pamphlet, illustrating methods of using machine, mailed on application.

New York Office . . . 136 Liberty St., Room 507.
Chicago Office and Store, 23 South Canal St.

If You Draw,

PURCHASE YOUR . . .

Drafting Instruments,
Drawing and Blue Process Papers,
Scales, Triangles, Curves,
T Squares, Colors, etc.,

FROM THE MANUFACTURERS.

Wadsworth, Howland & Co.,

INCORPORATED,

Branch Store: Grundmann Studios,
adjoining Architectural Building.

Main Office: 82 & 84 Washington St., Boston.

Factories: Malden, Mass.

SPECIAL RATES TO STUDENTS.

**ALBERT BENARI,
Tobacconist,**

33 TREMONT STREET, - - BOSTON, MASS.

Agent for the Bohemian Mixture.

FINE LINE OF FRENCH BRIAR PIPES ALWAYS
ON HAND.

New Tech Pin.

HENRY GUILD & SON

Have the best Tech Pin yet for 75 cents; also a combination of gold and silver for \$1.00, and Solid Gold at \$3.00. For sale at the Institute and

433 Washington St., Boston.

WRIGHT & DITSON...

Athletic Outfitters to the leading Colleges, Schools, and Athletic Clubs of New England.

BASEBALL

Supplies of Every Description for
Athletic Sports.

Tennis, Golf, Cricket, Track, and Field
Supplies. Gymnasium Equipments.

Discus Throwing. — Full line of Supplies for
this popular sport.

Estimates and Samples for Team Uniforms, etc.,
furnished on short notice. Secure our rates
before purchasing. Special attention to mail
orders. Catalogue free.

WRIGHT & DITSON,

344 Washington Street, Boston, Mass.



MANDOLIN, Banjo and Guitar Lessons.

Instruments, Best Strings, Latest Music, etc.

G. L. LANSING, No. 171 Tremont St.

Ask for Mr. Lansing.

CAREY, TEACHER OF DANCING.

212 BOYLSTON STREET, HOLLANDER BUILDING.

Most convenient location in the city. Classes
for Beginners and Advanced Pupils.

PRIVATE LESSONS.



MESSENGER & JONES,

Makers of

Men's Clothes,

388 Washington St., Boston.

**RIDING, KNICKER AND GOLF WORK
A Specialty.**

STUDENTS

Are cordially invited to inspect our work, which is a model
of neatness, and artistically done. None but competent
men employed.

Your patronage is respectfully solicited.

ERNEST M. ALEXANDER,

Copley Square Hotel.

Hair Dressing Parlor,

Cor. Exeter Street and Huntington Ave.

THE BRUNSWICK

BOSTON.

Boylston and Clarendon Streets,

(Adjoining Copley Square)

Near the Museum of Fine Arts,
New Public Library, New Old
South Church, and opposite
Trinity (Phillips Brooks')
Church, and Institute
of Technology.

**KEPT ON BOTH AMERICAN AND
EUROPEAN PLANS.**

BARNES & DUNKLEE, Proprietors

H. H. BARNES, Manager.



Scientific Books }

DAMRELL & UPHAM,
The Old Corner Bookstore,
283 Washington St., Boston.

CLASS-DAY INVITATIONS,

BLANK BOOKS, FOUNTAIN PENS,
CAN BE FOUND AT THE CO-OPERATIVE STORE,
H. H. CARTER & CO., 5 Somerset St., near Beacon.

Bookbinding

IN EVERY STYLE:

ALEX. MOORE, 3 School Street, BOSTON.



Week beginning April 19, 1897.

Tremont Theatre.—The second week of Sol Smith Russell's engagement in Martha Morton's last play, "A Bachelor's Romance." The dialogue of the play is bright and the wit sparkling; each character is a careful study, and that of Davy Holmes is one of Miss Morton's best.

Castle Square Theatre.—Mr. Hirschfeld's opera, "Au Clair de la Lune," will have its first performance on Easter Monday. It is many years since a resident musician has contributed a new work of this sort, and this production by the Castle Square Company is a well deserved compliment to Mr. Hirschfeld.

SCRIBNER's beautiful edition of Kipling; their celebrated Thistle edition of Stevenson. Houghton, Mifflin & Co.'s superb edition of Hawthorne, Lowell, Emerson, Holmes, Whittier and Longfellow; (350 choice engravings; the only illustrated edition published). Villon's edition of the Arabian Nights (unexpurgated), very rare. All the standard authors in all bindings, all editions. All books or sets published, complete sets delivered at once and payments of \$1 or \$2 per month, entirely satisfactory. Lowest cash prices guaranteed.

Address BOX 1, CAGE.

Boston Theatre.—The great success, "The Sporting Duchess," with an all-star cast, including Rose Coghlan, J. H. Stoddart, Cora Tanner and others. Matinee Monday.

Park Theatre.—Hoyt's "A Stranger in New York" is still drawing big crowds to the Park, and seems likely to continue, as new songs and other attractions are added every week.

Boston Museum.—It is a regret to many that "Secret Service" has but two more weeks in Boston. It is one of the best plays of the kind ever written, and no one should miss the opportunity of seeing it now with the original company. Matinee on Monday.

Hollis Street Theatre.—Last week of Julia Marlowe and Robert Taber. This week will be given "As You Like it," "Twelfth Night," "Romeo and Juliet," "For Bonnie Prince Charlie," "Much Ado About Nothing," and "Romola." There will be an extra matinee on Monday, beside the usual Wednesday and Saturday.

The Zoo.—"Joe," the most intelligent monkey of the age, is still holding crowded receptions. So is "Major Mite," the famous European midget. The latest importation is a chimpanzee.

Good Form

Is required in Wedding and Visiting Cards.
See our styles.

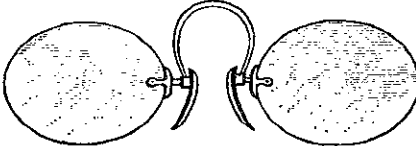
CARD PLATE AND 50 VISITING CARDS, \$1.50

SAMUEL WARD COMPANY,

49 Franklin Street, Boston.

SIX FLOORS OF STATIONERY.

Rimless Glasses.

25 per cent  Discount.

CO-OPERATIVE LIST.

Oculists' Orders Filled.

FACTORY ON PREMISES.

MAIL ORDERS A SPECIALTY.

CATALOGUES MAILED ON APPLICATION.

C. E. DAVIS,

Manufacturing and Prescription Optician,

2 PARK SQUARE - - - BOSTON.

I FLIGHT, ELEVATOR.

HIBBARD & MASON

(INCORPORATED)

Tailors,

MUSIC HALL PLACE,

Telephone 579.

Off WINTER STREET.

BOSTON.

DRESS SUITS, SILK LINED, TO ORDER, \$45

Dress Suits to Let.

THE Union Gymnasium

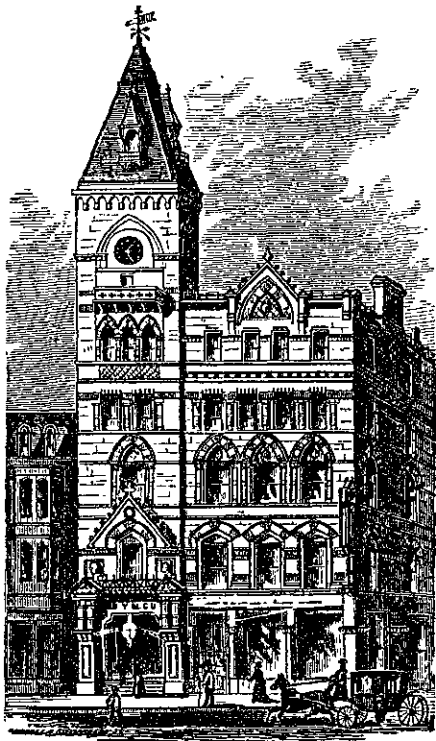
48 BOYLSTON ST. (near Tremont).

PRACTICAL.

Complete
Modern
Apparatus.

Popular
Classes.

Terms,
\$5 and \$8
per Year.



POPULAR.

Extra
Large
Lockers.

Competent
Instructors.

No Extra
Charge
for Instruction

BOSTON YOUNG MEN'S CHRISTIAN UNION.

WM. H. BALDWIN, Pres.

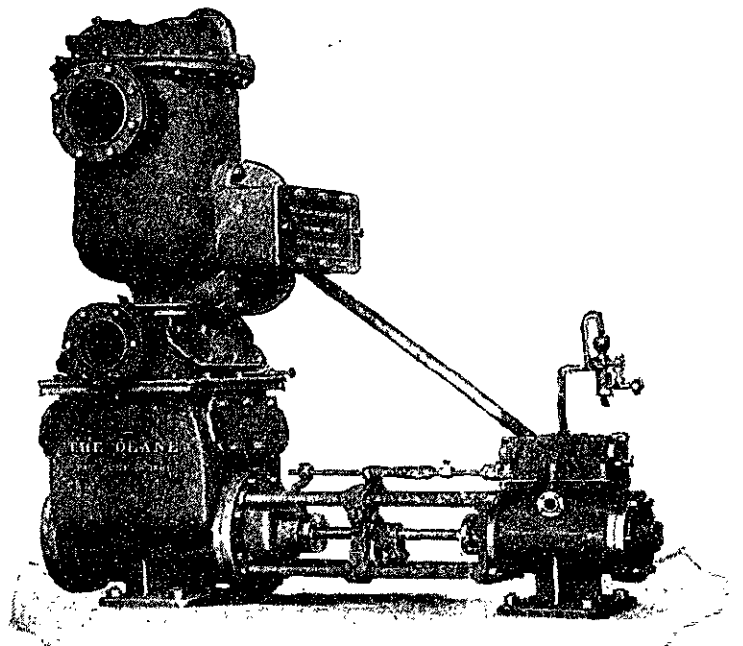
GEORGE PEIRCE, Sec'y.

THE DEANE STEAM PUMP CO.,

HOLYOKE, MASS.

Boston Office 54 Oliver Street.

PUMPING MACHINERY OF EVERY DESCRIPTION



DEANE INDEPENDENT

CONDENSING APPARATUS



The Richmond Straight Cut No. 1 Cigarettes.

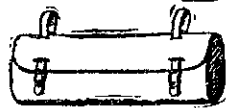
Cigarette Smokers who are willing to pay a little more than the price charged for the ordinary trade cigarettes, will find this brand superior to all others.

These **Cigarettes** are made from the brightest, most delicately flavored, and highest cost **Gold Leaf** grown in Virginia. This is the **Old and Original Brand of Straight Cut** Cigarettes, and was brought out by us in the year 1875.

Beware of imitations, and observe that the firm name as below is on every package.

ALLEN & GINTER
THE AMERICAN TOBACCO CO., SUCCESSOR,
 Manufacturer, **RICHMOND, VIRGINIA.**

FOR THE BICYCLE.



DON'T RIDE WITHOUT A REPAIR KIT. FOR YOU.



POND'S EXTRACT is unequalled for quickly healing all kinds of **WOUNDS, BRUISES, LAMENESS** or **RHEUMATISM.**

Rub thoroughly with POND'S EXTRACT after every ride to keep the muscles supple, pliant, strong. Try POND'S EXTRACT OINTMENT for PILES.

AVOID SUBSTITUTES—Weak, Watery, Worthless.
POND'S EXTRACT CO., 76 Fifth Ave., New York.



Anyone sending a sketch and description may quickly ascertain free, whether an invention is probably patentable. Communications strictly confidential. Oldest agency for securing patents in America. We have a Washington Office. Patents taken through Munn & Co. receive special notice in the

SCIENTIFIC AMERICAN, beautifully illustrated, largest circulation of any scientific journal, weekly, terms \$3.00 a year; \$1.50 six months. Specimen copies and **HAND BOOK ON PATENTS** sent free. Address

MUNN & CO.,
 361 Broadway, New York.

FIRST ANNUAL CLEARANCE SALE OF Men's Winter Underwear and Hosiery.

The balance of our stock of Heavy Underwear and Hosiery marked at Closing Prices. Also the balance of our stock of Lined Gloves and Scotch Wool Gloves marked down to close. This is a good chance to secure fine goods at the price of much inferior qualities. We carry a full line of E. & W. Collars and Cuffs.

329 COLUMBUS AVENUE,
 (Just below Conklin's Pharmacy.)

A. COHEN.

AGENCY FOR CAMBRIDGE LAUNDRY.

Established 1843.

Incorporated 1895.

"STUDENTS," ATTENTION!

LARGEST STOCK AND LOWEST PRICES
 ... ON ...

MATHEMATICAL INSTRUMENTS

AND DRAWING MATERIALS OF ALL KINDS, at

FROST & ADAMS COMPANY'S,

IMPORTERS AND WHOLESALE DEALERS,

37 CORNHILL, - - - - BOSTON.

"SPECIAL RATES TO COLLEGES."

NEW ILLUSTRATED CATALOGUE FREE.

ESTABLISHED 1889.

A. H. MATZ & CO.,

Merchant Tailors,

431 Columbus Ave., Next to Plaza Hotel.

We show a fine line of the best New York and London Specialties, in Suitings, Overcoatings, Bicycle Costumes, etc.

**Special Discount
to Students,**

many of whom we count among our customers. All work done on the premises.

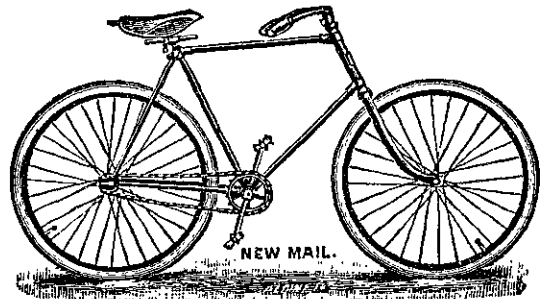
**Cleansing, Pressing, and Repairing
Neatly Done.**

OPEN EVENINGS.

NEW MAIL

HIGHEST GRADE LIGHT ROADSTER.

\$85.



MEN'S AND LADIES' pattern . . . \$85

Also **TEMPLAR** medium grade Men's Wheel . **\$50**

ATALANTA, Ladies' Pattern . . . \$50

Boys' and Girls' Wheels . . . \$15 up

Now closing out a few Shopworn and Secondhand Wheels, taken in trade, at very low prices. Bargains. \$25, \$30, etc.

Catalogue and Secondhand list.

.. WILLIAM READ & SONS ..

107 WASHINGTON STREET, BOSTON.

Elmer Chickering,

The Leading Photographer.

SPECIAL RATES TO STUDENTS.

THERE is not a photographer in New England who has been more successful than Elmer Chickering, of No. 21 West Street, and people who desire to have first-class photographs taken, of themselves, or of their friends, should go to this gallery. His success in the business is wonderful. His pictures are admitted to be exact reproductions of the subject, and are remarkable for their clearness and fidelity in detail. Among his patrons are the leading citizens of the United States, including presidents, governors, mayors, and others prominent in official lines, the highest military officers, the most prominent opera singers, the leading actors and actresses. Far and near his pictures are known. In Europe as well as America they are highly admired. Mr. Chickering is a host in himself, but with good judgment he has surrounded himself with a corps of operators and assistants in his operating rooms who have no superiors, while in his office is to be found young lady attendants who thoroughly understand how to please patrons, and by their uniform courtesy add much to the popularity of "Chickering's Studio."

NECKWEAR

UMBRELLAS

THE L. E. FLETCHER CO.

College Hatters and Outfitters.

Latest Styles and Popular Prices. Custom Shirts a Specialty.

M. I. T. CO-OPERATIVE SOCIETY.

No. 158 Boylston Street, Boston.

GLOVES

CANES