

Entered at the Post-Office, Boston, Mass., as Second-Class Matter.

i fice all file is the

Written by Prof. Robert J. Roberts, the originator of the famous "Roberts Dumb-bell Drill." A copy of this little volume will be presented to young men visiting the Gymnasium of the Boston Young Men's Christian Association, cor. Berkeley and Boylston Streets. Open every week day from 8 A. M. to 10 P. M.

JAMES L. GORDON,

General Secretary.

GEO. ALLEN, JR., Secretay Main Department.



Offers large and pleasant outside rooms, from \$7.00 per week upward.

Dining rooms conducted on both American and European systems.

At reasonable rates.

LEVI B. CAY, PROPRIETOR.

FREDERIC LORING, Manager.

ARTHUR S. DOANE & CO.,

ENGRAVERS AND STATIONERS.

27 KILBY STREET.

BOSTON.

WEDDING AND VISITING CARDS.

GENERAL ELECTRIC COMPANY.

EDISON AND THOMSON-HOUSTON SYSTEMS.

Electric Lighting. Electric Railways. Electric Power.

SEND FOR OUR CATALOGUES

BRANCH OFFICES:

620 Atlantic Avenue, Boston, Mass. 173, 175 Adams Street, Chicago, III.

264 West Fourth Street, Cincinnati, O. 401-407 Sibley Street, St. Paul, Minn. Gould Building, Atlanta, Ga.

42 Broad Street, New York. 509 Arch Street, Philadelphia, Penn. Masonic Temple, Denver, Col.

15 First Street, San Francisco, Cal.

YOUNG SHOES

OF EVERY DESCRIPTION.

% Fashionable, · Durable, · and · Moderate · in · Price.

Co-operative discount to students of Tech.

Thayer, McNeil & Hodgkins,

47 TEMPLE PLACE. BOSTON.

IS MADE EXPRESSLY FOR

WHEN WE MAKE THE ABOVE ANNOUNCEMENT WE MEAN JUST THIS:

It is made in Proper Style, Of the Best of Material, By the Best Workmen we can Hire.

It is not, like hundreds of factory-made shoes, made for shoe dealers to sell at \$3.00 or \$4.00 through extensive advertising.

We do an immense business in Boston, New York, Philadelphia, and other large cities on our Crawford Shoe alone, and we do it on the GOOD REPUTATION of our shoe.

Think of this, visit one of our stores, and examine the shoes for yourself. They are JUST AS GOOD as they look.

STORES SHOE BOSTON. CRAWFORD

611 WASHINGTON ST., opposite Globe Theatre.

225 WASHINGTON ST., next door to Thompson's Spa.

Under UNITED STATES HOTEL, cor. Kingston St.

56 MAIN ST. (Charlestown Dist.), Boston.

BOUVÉ. Corp., Maker. CRAWFORD & CO.

BOOKBINDING

IN EVERY STYLE:

ALEX. MOORE, 3 School Street, BOSTON.

HOMEWARD BOUND.

BY SEA AND RAIL.

The Norfolk Route.

The palatial steamships of the Norfolk Route ply semi-weekly and direct between

BOSTON, NORFOLK AND BALTIMORE,

Sailing from Central Wharf, Boston,

Every Tuesday, Thursday and Saturday, at 2 o'clock P. M.

Connecting with Rail and Water Routes for Washington, D. C., the South, Southwest, and Pacific Slope.

You are respectfully invited to inspect our steamers, and see for yourself the accommodations offered.

C. P. GAITHER, Soliciting Agent, A. M. GRAHAM,

Agent, Central Wharf.

200 Washington St., BOSTON, MASS.

ALL RAIL.

The Shenandoah Valley Route.

The Shenandoah Valley Route connects with all lines from Boston to New York, and thence is via the world-renowned Pennsylvania Railroad, or picturesque Baltimore & Ohio, passing through Philadelphia, Harrisburg, Hagerstown, Antietam Battlefield, Old Charlestown, made famous as the place where John Brown was executed, or Washington, Shenandoah Junction, the wonderful Caverns of Luray, the historic Natural Bridge, on to Roanoke and the magic cities of the New South, Bristol, Knoxville, Chattanooga, Nashville, Decatur, Florence Sheffield, Corinth, Grand Junction, Memphis, Little Rock, and Texas.

Kansas City, Colorado, Utah, and the Pacific Coast.

Chattanooga, Fort Payne, Birmingham, Meridian, Vicksburg, Shreveport, Texas,-Cleveland, Tennessee, Dalton, Rome, Anniston, Calera, Selma, Montgomery, Mobile, New Orleans, Old and New Mexico, and

Atlanta. Macon, Jesup, Brunswick and Florida.

Through Pullman Car service from New York, Washington and Norfolk, to Roanoke, Louisville, Knoxville, Chattanooga, Nashville, Memphis, Birmingham, New Orleans,

C. P. GAITHER, N. E. Agt., 290 Washington St., Boston.

PRIEST'S

DINING ROOMS.

100 and 102 DARTMOUTH STREET. 397 COLUMBUS AVENUE.

Mr. HALE'S SCHOOL FOR BOYS

5 Otis Place, Boston.

Prepares for the Institute of Technology and for Harvard College.

Inquire of the former pupils of the school who are now in the Institute in regard to the preparation given.

Ye folland No 611 Studios Washington Street Boston

ARTISTIC Photography.

CRAYONS.

WATER COLORS.

PASTELLES.

Take Elevator.

Easy of Access.

Centrally Located.

Occupying the large and commodious rooms comprising the entire top floor of the building at 611 Washington Street, opposite the Globe Theatre, where we have the largest and best northern light in the city of Boston.

At the new studio we have every facility for sustaining our reputation as excelling in "group pictures."

THE UNION GYMNASIUM 48 BOYLSTON ST. BOSTON.

SEASON OF 1892-93.

The Union Gymnasium opens October 10th, after extensive repairs and additions.

Latest Sanitary Plumbing.

Entirely new and improved bathing facilities and new apparatus, part of which has never before been introduced into any gymnasium, making it the most completely equipped and largest gymnasium in Boston. It is above the street level and open to light and air on every side.

Cards with full particulars may be had upon application.

TERMS.

Including the Union Membership (One Dollar), and entitling to all its privileges.

For One Year, use of Gymnasium after 7.00 P. M., and on holidays for such time as it may be open, For One Year, use of Gymnasium at all times when									
open			8	\$8.00 .50					
JAMES W. MONTGOMERY GERMAN F. HOFFMAN EDWARD O. OTIS, M.D., (Harv.))	<i>Medi</i> c Pen	cal D	irector.					

WM. H. BALDWIN, Pres.

DRAFTING INSTRUMENTS

DRAWING AND
BLUE PROCESS
PAPERS

Selected with especial reference to the requirements of Students of the Institute.

Scales, Triangles, Curves, T Squares, Etc.

WADSWORTH, HOWLAND & CO.,

82 AND 84 WASHINGTON STREET, BOSTON.

SPECIAL RATES TO STUDENTS.

267 STATE STREET, CHICAGO

L. P. HOLLANDER & CO.

SPECIAL DEPARTMENT FOR YOUNG MEN.

FINE TAILORING.

High Class Ready-made Clothing.

Furnishing Goods, Hats and Caps, New and Correct Styles for Spring Wear.

The Best Goods at Moderate Prices.

202-212 BOYLSTON STREET and PARK SQUARE, BOSTON.

Frank Wood,

Printer,

352 Washington Street, Boston.

SPECIAL RATES TO STUDENTS!

F. J. KALDENBERG CO.,

MANUFACTURER OF

Meerschaum and French Briar Pipes, Cigar and Cigarette Holders, and and Andares Goods.

Walking Sticks, mounted in Gold, Silver, Ivory and Buckhorn.

CLASS CANES,

Made and Mounted after any Design.

PIPES BOILED, REPAIRED, AND MOUNTED IN GOLD AND SILVER.

Repair Work and Engraving done on the premises.

338 WASHINGTON STREET.

ELECTRIC MOTORS

. . FOR . .

ALL POWER PURPOSES.

ELECTRIC

Hoisting Apparatus.

Thomson - Houston Practical & Successful Systems Motor Co.,

620 Atlantic Ave.,

BOSTON,

THE ONLY

. . OF . .

. . ARE THE . .

EDISON AND THOMSON-HOUSTON.

DANCING.

WALKER'S ACADEMY. No. 24 DWIGHT STREET.

Evening Classes from Oct. 1st to May 1st. Private Lessons daily from 10 to 6.

Please call or write.

Drawing Boards, Papers,

Inks, Pens, Instruments, and Fountain Pens

At Discounted Rates.

A. D. MACLACHLAN,

Tech. Co-operative Store,

214 Clarendon St., Boston, Mass.

The Electrical Engineer.

A Weekly Review of Theoretical and Applied Electricity.

ARE YOU a STUDENT, an ELECTRICAL ENGINEER, an ELECTRI-CAL EXPERT, or in any way interested in Electricity? In any case you will find THE ELECTRICAL ENGINEER an interesting and useful weekly visitor. It is the oldest general electrical journal in America, and the leader in technical excellence and enterprise.

THE ELECTRICAL ENGINEER is in magazine form, convenient for reading, preservation and binding, and is amply and artistically illustrated. It is always up to date with electrical progress. Subscription, \$3.00 per year.

Address

The Electrical Engineer,

203 Broadway, New York.

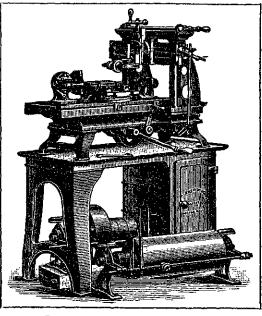
Subscriptions received at special student rates by the Editors of "The Tech."

UK.

A PRACTICAL

Hand or Power Planer

INSPECT OUR



A Large Assortment of Steel Rules, Calipers, Dividers and Small Tools.

a. J. Wilkinson & Co.,

184 and 188 Washington Street, BOSTON, MASS.

SAMUEL USHER, PRINTER,

NUMBER 171 DEVONSHIRE STREET,

BOSTON, MASS.

All kinds of School and College Printing for Classes and Fraternities executed promptly, and in the highest style of the art, at reasonable rates.

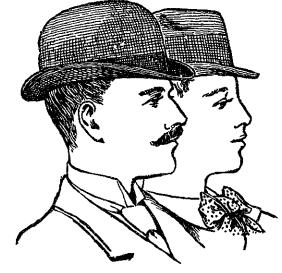
ESTIMATES CHEERFULLY FURNISHED.

BANJO AND MANDOLIN.

G. L. LANSING,

Teacher, and Director of Clubs, 58 A WINTER STREET, BOSTON.

BEST INSTRUMENTS CONSTANTLY IN STOCK. MUSIC, STRINGS, ETC.



CHESTERFIELD,

HARVARD,

\$3.

Two new styles of hats for young men and youths in the correct shapes for Fall and early Winter. Blacks, Seal and English Browns, Pearl, Tan and Tobacco shades.

HAT DEPARTMENT.

A. SHUMAN & CO.,

BOSTON.

CLOTHIERS and OUTFITTERS.

ABRAM FRENCH CO.,

89, 91 and 93 Franklin Street,

IMPORTERS OF

China, Glass and Fancy Pottery.

Wedding and Birthday Gifts A SPECIALTY.

ALL THE LATEST PATTERN,

RICH CUT GLASS.

DINNER SETS,

From the Lowest Cost to Highest Grade.

WE ARE THE LARGEST IMPORTER OF HAVELAND & CO.'S FRENCH CHINA IN THE UNITED STATES.

Reasonable prices in our entire stock.

ABRAM FRENCH CO.

New Pictures.

Etchings, Engravings, Photographs, just received from the best American, English, French, and German publishers.

The largest and finest stock to select from in New England,—and prices satisfactory.

Special attention to Artistic Framing.

WILLIAMS & EVERETT,

190 Boylston Street, - - Boston.



J. C. LITTLEFIELD,

Tailor and Outfitter,

21, 23 BEAGON ST., BOSTON.

Exclusive Styles for Young Men

DRESS SUITS A SPECIALTY.

DISCOUNT TO STUDENTS.

FROST & ADAMS,

-Importers of --

DRAWING INSTRUMENTS

AND

Supplies for Students, Architects, and Engineers.

SEND FOR ILLUSTRATED CATALOGUE.

No. 37 Cornhill, Boston.

-Liberal Discount to M. I. T. Students.



"TECH" SPECIAL.

WE ARE

TAILORS TO THE TECH CO-OPERATIVE SOCIETY.

EXCLUSIVE LONDON STYLES

For students' wear our specialty, with prices moderate.

Inspection solicited.

All goods warranted for excellence of make and superiority of colors.

Messenger Brothers & Jones

TAILORS AND IMPORTERS,

No. 388 Washington Street, Boston.

Tec.

VOL. XII.

BOSTON, FEBRUARY 16, 1893.

No. 18

бне бесн.

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

BOARD OF EDITORS.

RAYMOND BEACH PRICE, '94, Editor-in-Chief.
FREDERICK HOPPIN HOWLAND, '93.
HARRY LAWSON RICE, '93.
ALBERT FARWELL BEMIS, '93.
FREDERIC WAIT LORD, '93.
JAMES RAMSEY SPEER, '93.
HAROLD ANTHONY RICHMOND, '93.
JULES GODCHAUX, '93.
COLBERT ANDERSON MACCLURE, '94.
ANDREW DANIEL FULLER, '95.
EDWARD LEBER, '95.
CHARLES GILMAN HYDE, '96.

ANDREW DANIEL FULLER, '95, Secretary.

CHARLES REAY KNAPP, '94, Business Manager. CHARLES ROYCE BOSS, '93, Assistant 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.

FRANK WOOD, PRINTER, 352 WASHINGTON STREET, BOSTON.



HROUGH the good efforts of Mr. J. R. Coolidge, Jr., a former pupil in the Architectural Department, and Mr. A. W. Wheelwright, both of whom are studying now Paris, the Institute

has secured the services of a graduate of the Beaux Arts of the highest rank to take the professorship formerly held by Professor Létang. M. D. Despradelle is from the Etalier Pascal, and was graduated from the Ecole Nationale des Beaux Arts, de Paris, some five years ago at the age of twenty-five, an unusually early age. His school record is a fine one. He won nearly all the small prizes, and all but obtained the Prix de Rome, which, if it had happened, would have put him beyond our reach. He has already gained

a position for himself in Paris. He is Sous Inspecteur aux traveaux des Batiments civils du Monuments de l'Etate, and besides his title of Premier second grand Prix de Rome, he has that of Architecte diplome de la Societe Centrale des Architectes Français, and also Architecte diplome par le Gouvernement. A transcript from a private letter says, "M. Despradelle is a very characteristic specimen of a certain class of Frenchmen, very active minded, a most fluent talker, and a man who seems to have more ideas than his hands or his tongue will ever be able to express." He is spoken of as very enthusiastic, a skilful critic, and a most finished draughtsman. While M. Despradelle rightly feels that his future is an assured one where he is, his great activity and energy attracts him toward us. On account of work that he is engaged upon, he cannot join us until next September, but we can afford to wait with the assurance, by so doing, that we gain so worthy a successor to Professor Létang.

T has again become necessary to refer to the very insufficient accommodations offered the battalion in the gymnasium in changing their military suits. The fact that two hundred and sixty men are crowded together where but fifty can dress at all comfortably, and that, disregarding the question of room, there are no arrangements provided for hanging up or depositing one's clothes—except the floor must not be overlooked. A good deal of dissatisfaction is being expressed on account of this great discomfort in dressing, a state which tends to produce a lack of enthusiasm and interest more quickly than anything else. While it is known that he who has direct charge of the drill is doing everything in his

power to make the work as satisfactory as possible, there is certainly some one to blame in the matter, and an attempt should be made to remedy the difficulty. It can indeed be righted if but the proper persons will realize the importance of the matter.

There has been more or less talk among the members of the battalion regarding the benefits to be derived from a change in the drill If, for instance, the period at the armory were to be from half past eight to half past nine, there would be, in the first place, a full hour of drilling instead of but forty minminutes. Again, it would then be possible for the men to dress in their room, and thus leave for those out of town plenty of room at the gymnasium, making, it would be safe to say, the satisfaction for more general. Moreover, a number of lockers would be left vacant, which would be very useful to other Institue men wishing to take up afternoon gymnasium work. These considerations certainly seem to be worthy of notice. . In any event, may the Freshmen have what it is their right to have, -accommodations. These will aid, as we said before, more than anything else in renewing the flagging interest of the men in battalion work.

PLAN which is said to be on foot, to introduce military instructions into the Sophomore Year, is one that presents many advantages, inasmuch as the time now alloted to drill is so short, that but little progress is possible. After allowing time for dressing, there remains hardly an hour and a half each week for practical work, one hour being devoted to lectures. This is even less time than is required of the state militia, and there is much time wasted at the beginning of the year for want of competent officers; many men coming to the Institute who have never had military instruction of any sort, and others who have much to unlearn. Thus, to obtain a high

standard of efficiency in this department, these disadvantages must be overcome.

If the proposed scheme is carried into effect, there will be, during the year, instruction in "setting up" exercises and squad drill only, giving the men an excellent foundation for what is to follow. This will include battalion drill, field practice, instruction in military theory and the art of war, together with lectures upon the organization of the armies of the United States and foreign countries. addition there may be formed a class in military engineering which will be given actual field practice. The advantages of such a system are obvious, and while it is a well known fact that many of the students regard the present drill exercises as merely a bore, to be avoided if possible, it is more than probable that under an arrangement such as the above, they would take a lively interest in the work.

among the Seniors taking the thirty-thirty course in English with Mr. Herrick. And well might they be displeased with the action of the Faculty in giving them, at this period of their course, a subject not only foreign in its relations to their course, but one which they have already taken in their second year under an instructor who taught his subject thoroughly, and in an improved manner.

Seniors begin the second term with the idea that with the view of having them devote most of their time to their theses, as little work as possible will be prescribed for them. Instead of this being the case they are given a preparatory course in English literature; a course carried on in the most elementary manner. The very idea of Seniors taking notes for the sole purpose of seeing how well they can do so, meets with censure from even the most liberal minded student among us. And if these sixty, or more, hours must be spent on English let us have it done wisely. A course

in Business Law or Political Economy, as was given the Electricals in their third year, would be satisfactory; but to compel the repetition of a course in English is unjust in the extreme.

COMMUNICATIONS.

The Editors do not hold themselves responsible for opinions expressed by correspondents.

CHICAGO, ILL., Jan. 31, 1892.

To the Editors of the Tech:-

The Northwestern Association of the Massachusetts Institute of Technology held its Sixth Annual Meeting and Banquet at the rooms of the University Club, Saturday evening, January 28. There were forty-five present, and the meeting was most enjoyable and enthusiastic. The following were elected officers to serve during the year 1893:—President, H. F. Baldwin, '84; Vice-President, C. M. Wilkes, '81; Secretary and Treasurer, John L. Shortall, '87; Banquet Committee: -W. D. Sargent, '87; Samuel Dauchy, '87; Benton Sturges, '90; E. A. Emery, '90, with the officers. A committee of three, Messrs. Frank Wells, '76; Solomon Sturges, '87, and Richard E. Waterman, '92, was elected to act and co-operate with a committee of the Faculty, in connection with the Institute's exhibit at the World's Columbian Exposition.

It was decided to have "Technology Headquarters" during the World's Fair, the same to be provided by the Northwestern Association, and \$1,100 was subscribed at the meeting to carry out this project.

The following were present:—

Staughton Walker, '87; F. W. Clark, '80; John L. Shortall, '87; Benton Sturges, '90; Frank Wells, '70; J. E. Fuller, Jr., '88; David Van Alstine, '86; Solomon Sturges, '87; C. B. Beosom, '90; C. M. Wilkes, '81; Wilson H. Eow, '86; William D. Sargent, '87; J. L. Mauran, '89, O. E. Branch, '80; H. F. Baldwin, '84; H. J. Horn, Jr., '88: G. G. Stone, '89; W. L. Dearborn, '88; F. V. Emmerton, '72; R. G. Schmid, —; Edwin O. Jordan, '88; G. L. Harvey, '88; R. E. Richardson, '85; Arthur Woltersdorff, '93; Louis R. Cobb, '86; Henry J. Schlachs, '92; C. L. Burlingham, '86; J. H. McCorsney, '87; A. L. Mills,

'76; R. S. Ball, '91; C. E. Pratt, '87; J. B Lukes, '92; Samuel Dauchy, '87; H. H. Wait, '91; William B. Poland, '90; G. H. Lukes, '92; F. W. Perkins, '86; Philip Harvey, '90; Jasper Whiting, '89; Albert Sauveur, '89; T. C. Dupont, '84; Richard E. Waterman, '92; John Glidden, '90; S. D. Hood, '90.

It was decided to hold the Annual Banquet the last Saturday of January of each year.

It is probable there will be a dinner of the Association held some time during the World's Fair.

Yours truly,

SOLOMON STURGIS.

DEAR SIR: Permit me to invite your attention to the copy of "Errors in School Books" which is mailed to you to-day. This pamphlet points out many erroneous statements in school books in common use; but the object of the publication is to emphatically direct the minds of educators to the fact that the omission to teach the fourth "R" is a most serious mistake and something, which sooner or later should be remedied.

Will you not in the columns of your newspaper show that the fundamental common school education should be enlarged so as to embrace not only Reading, 'Riting, 'Rithmetic,—but the fourth R—Roads. Should you print anything in relation to this, will you kindly send me a marked copy of your paper, as I wish to obtain for publication a compilation of opinions on the need of such instructions.

Very truly yours,

ALBERT A. POPE.

[We are pleased to state that Technology, though anything but a "common school," is doing her best to impress upon all the importance of good roads. If you don't believe it, ask our Civils. Joking and cyclists aside, it must be evident to every one who gives the matter serious thought that America is behind Europe in no more important particular than this. Even the Highlands of Scotland and the country districts of France can boast of roads that may well put to shame many of our most traveled thoroughfares. It is not for us to argue, however; still we look forward to the day when the United States shall lead in its road systems as in everything else save old cities and ruined castles.—ED.]

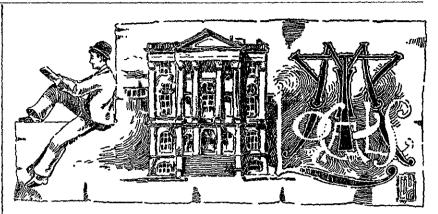
THE TECH may be secured for the second term for \$1.25. Every man in Technology should have it.

A short meeting of the Freshman Class was held last Thursday, at one o'clock, in Huntington Hall, to take some action upon a few matters of class interest. Although the meeting was held immediately after, and in the same place as, the Political History lecture, which the whole class attends, two hundred and fifty of the men who did not have enough class spirit to remain in their seats a short twenty minutes went out, leaving, however, enough of the class to form a quorum.

After the meeting was called to order, President Rockwell suggested that a man from each section be selected to make a thorough canvass of his division in behalf of the Bishop Brooks Memorial Fund. The plan met with general approval, and was adopted. The Senior and Class Dinner Committees reported but little progress. Upon motion of Hurd, Crosby was elected Manager of the class baseball team for the coming season. It was decided by vote that all class trophies should be kept for the class by each captain of the athletic team, during the college course. Rockwell and Hurd then spoke of the importance of training for the class team race in the New England championship games, after which the meeting was adjourned.

The Junior Dinner.

The Junior Dinner will in all probability be held next week on account of the difficulty of securing proper accommodations and making necessary arrangements sooner. The expense will not exceed two dollars, and every effort is being made to insure a grand success. Remember, this is '94's Junior Dinner—let every Junior show his class interest by attending. The season is propitious; every man can now spare a night off and afford a little extravagance. Notices will be posted in each building when date and place are settled. Juniors, you have a reputation to sustain.



Stereotomy notes, two dollars!!

Has anybody seen the Photographic Society?

Athletes are beginning to limber up their muscles for the Spring tournaments.

One of the Freshman class has just found out that acid does not make a good eye wash.

In a recent number of Life we noticed a very neat design from the pen of E. W. Donn, '91.

Prof. Lanza takes men to the testing machine and says, "at-tension," and "jumps on" them with compression.

The Freshman warriors need not quake in their shoes. Great Britain has too many irons in the fire to fight over Hawaii.

The "Sophomore Architects" began Design last week, and consequently feel very important and full of professional dignity.

Freshmen! Do remember that when you are late to the lectures, shaking the door is not going to let you in—neither is the Instructor.

"Lost, strayed, or stolen," "Pop" Day, last seen on 5th Avenue stage 3033. Any clue as to his whereabouts will be thankfully received by the class.

The Track Committee, in arranging the handicaps for the New England Championship Games, gravely announces that Mr. Hurd, '96, has two feet.

All Seniors desiring to take advantage of the low rates offered by the Notman Photographing Co., should make engagements with that Company for sittings.

F. F.: "I fear that Anna and I will have to pick up again."

H.: "Pick up with whom?"

F. F.: "Analyt, of course."

"Are you in the hole?" asked Mr. Reed of a man weighing the water in the ejector test.

"Yes, I owe about \$100," answered the student, busy with his work.

The following men have been elected to serve on the Class Day Committee: Bemis, Beattie, Dearborn, Fabyan, Fay, Norton, Simonds, Alden, Dorman, and Houck.

President Bemis has appointed the following Seniors for the Class Dinner Committee: J. H. Reed, Jr., H. A. Richmond, F. P. Simonds, C. E. Spofford, and Jules Godchaux.

Judging from the activity of the Course II. men on their theses, they will leave enough "original research work" behind them to be copied by the next three graduating classes.

Freshman: "Oh! I find Descrip. a dead snap."

Soph: "How far along are you?"

Freshman: "Nearly through the first plate."

Mr. Brown, '93, who was injured during the vacation, has been improving very rapidly of late, and his friends now hope and expect that he will be able to return to the Institute this term.

Born, to Edward McKim Hagar, a moustasche. From last reports both child and parent were doing nicely, and the offspring bids fair to become a mouthey heir to the Hagar lad. No cards.

"Yes, the fever shoved me behind, but I plugged my Dutch down cold."

"How so?"

"Oh! I lived in a 'germ-many' atmosphere so long."

Mr. Ross Turner's water-color class is large this term. A number of second-year men and specials are taking this most interesting and useful study with the third-year Architects, of whom it is required. All suggestions as to the duties, methods and objects of the Institute Committee from any member of Technology will be gladly received. Drop communications in The Tech box in Roger's corridor.

The Tech. Glee and Banjo Combination gave a concert at Melrose on Monday last, Febuary 13, which was very well attended and enjoyed. Their next concert takes place on the 22d, at Worcester, Mass.

Freshman (translating French): "And he was choking in the endeavor to swallow the last mouthful of 'pain."

Professor: "Pain, pain? I must say that your translation gives me a very severe one."

In the list of theses of the Course VI. men, the names of Messrs Sutter and Dolan were omitted. They are working together on "The study of the Characterstics of the United States Dynamo, and the Distribution of Potential around the Armature."

The practice for the coming New England indoor championship games is beginning to bring out a large number of men during the afternoon at the gym., so that it once more presents quite a lively spectacle—quite different from "Semi" week.

The following men have been appointed to serve as a committee of arrangements for '93's last undergraduate dinner: Spofford, Richmond, Godchaux, Simonds, and Reed. The Class looks to these men to make the event the most successful of '93's dinners.

A very interesting book can be had of "George," the genial janitor of the Gymnasium. It is a treatise on athletics, and contains all the records for a number of years past. It is sold at the exceedingly low price of ten cents, and should meet with a ready sale.

The Sophomores and Freshmen are beginning to look over their classes; the Sophomores to see what new baseball material there is, and the Freshmen to see what they have in general. Both the baseball teams promise

to be very strong, so a "grand finale" may be looked for.

At a meeting of K₂S, February 8, 1893, Messrs. Dorman, '93, Fowle, '93, Baker, '94, Newell, '95, Rockwell, '95, were admitted to membership. It has been decided to hold meetings every two weeks for the ensuing year, the next being booked for Young's, on February 16.

For the benefit of those students who are dissatisfied at having to pay \$2.25 for a few pages of notes at Ridler's, it has been suggested that the Institute needs all the money it can get, whether by fair means or otherwise, and we should not begrudge it \$2.00 on every set of those notes sold.

Lieutenant Hawthorne has taken a most decided step in regard to the lockers at the "gym." All those lockers not officially rented for this year have been broken open and the contents stored away. This is probably the proper thing, but is, perhaps, a little hard on some few individuals.

Anyone who wishes may spend a pleasant hour on Tuesday and Thursday mornings in watching the drilling of the Freshman Battalion in the Armory. It is only recently that battalion drill, as a whole, has been taken up, and for first attempts the results are quite satisfactory, and certainly interesting.

As yet, Room 30, Engineering Building, has not been transformed into a pool selling establishment. The bookmakers are getting their heads together, though, and the degree question will soon be drawing a large crowd. This part of the Course bids fair to excel Course IV. "catchpenny" schemes.

The Editors of THE TECH regret exceedingly that it has been impossible to get the issue out on time on every occasion, but the cause has been the enforced absence of two of the editors, Mr. Price among them. He is now back, and delays will occur no longer, unless some unforseen circumstance should arise.

The number of Sophomores taking Political History with '96 forcibly reminds the Freshman of what his fate is likely to be, and presents to him, as it were, a living example of paying the penalty for allowing lecture after lecture to pile up without review. So, '96, take heed and profit by the experience of your predecessors.

Everybody seems to be quite in favor of aiding a bit in the construction of the monument to Phillips Brooks in Copley Square. It is expected that all subscriptions will have been received at the end of this week, and that the sum total may be announced in the next number of The Tech. Let every man be represented, if he subscribes but a dime.

THESIS SUBJECTS.

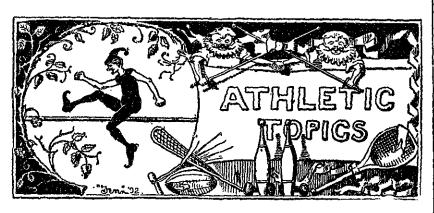
COURSE IX .- GENERAL STUDIES.

- W. B. Gamble: Life and Writings of George William Curtis.
- G. K. Dearborn: ----
- F. H. Howland: The Proportion of Foreign to Nativeborn Citizens in the Legislatures of several of the United States.
- F. C. Norton: A History of the "Reading Coal Combine."
- A. B SMITH: A History of the Panama Canal.
- R. N WALLIS: A History of "Tammany Hall."

Course VI. Man in Second Year Drawing Room: "Mr. Hamblett, this book of drawing instructions says that dimension lines should be composed of dashes one-half an inch long. I have a space three-sixteenths of an inch wide to dimension, and I don't see how I can get a half-inch line into that." Mr. Hamblett: "The book says that the dashes should be represented by one-eighth inch spaces, doesn't it?" Smart Sophomore: "Yes, sir." Mr. H.: "Then, in this case, you should make the dimension line of spaces, and omit the dashes if you can't get them in."

We have but just learned of the death by consumption of Alfred S. Ellsworth, '88, a graduate of Course I. After graduation, he took a position in the Pittsburgh Testing Laboratory, and within a year he was an

inspector for several extensive railroads on a number of large bridges. Very few graduates, in so short a time, have been so successful, or have commanded so large a salary, as had Mr. Ellsworth. He remained with the Testing Laboratory, and at the same time was inspector of bridges at Athens, Pa. He also designed not a few bridges himself, including a very large one shortly before his death, and was considered very apt and successful in the department. He had just opened an office with his brother, and was meeting with pronounced success when he died. We are deeply grieved to learn of the death of Mr. Ellsworth, who would undoubtedly have made a great name for himself, and added much to the fame of the Institute.



The team race between Technology and Worcester Polytechnic Institute took place at the Worcester Athletic Club, Saturday February 4th. The representatives of the M. I. T. were Hurd, '96, Lord, '93, Dearborn, '93, and Batchelder, '95; and those from the W. P. I., O'Connor, Allen, Whipple, and Gallagher. The men ran in the order named, and on the toss up Worcester took the pole. First Quarter.—Although O'Connor had the inside Hurd made a good start and took the lead immediately. Both men ran with good judgment, but Hurd was considerably the faster, and at the finish of the first relay had a strong lead of about ten yards. Second Quarter.-Allen started off with a spurt and caught Lord at the end of a lap, but by the end of the sec-

ond relay Lord had regained the distance given him by Hurd. Third Quarter.—This was one of the fastest of all the relays, and Dearborn had a good man against him. the finish he was just enough ahead of his man to give Batchelder the pole. Last Quarter.— Batchelder and Gallagher are both known to be two of the best at their distances, and the race between them was a "clinker." gher cut inside but fouled and fell down. But he got up as quickly as he fell and lost only about three yards. At the end of the second lap Gallagher spurted and took the lead once more amid the wild cheering of the spectators. Batchelder hung on about three yards behind Gallagher, and they kept this relative position till the homestretch. Here Batchelder made one of the pluckiest spurts ever seen on a race track, and passed his man within a dozen feet of the finish. But he was so completely run out that he fell, utterly exhausted, under the tape without breaking it. As Gallagher broke the tape, Worcester was awarded the race, and every one present agreed that it was the best event of the kind he had ever seen.

The open athletic meeting held last Saturday evening at the Mechanics Building by the B. A. A, was a very largely attended affair. Although the time made in the dashes was not of the record-breaking order, considering the hard corners to be turned, the time in several events was very creditable. In the 40-yard dash, Harvard was an easy winner in spite of the gritty showing of the Yale representative. The team races were by far the most interesting events, applause being especially elicted by the close finish of the race between Amherst and Dartmouth, in which the latter won by a veiy small margin. Despite the fact that the Institute had but three entries, the winning of the 45 yards hurdle by Hurd, '96, and the nervy fight of Lord, '93, scratch in the same event, brought our athlectic association to the front. The breaking of the world's indoor record in the high jump, was also one of the features of the evening's sports.

Tech men have been numerous at the Boston Art Club Exhibition. By clever management one ticket is made to serve all.

With the foundation of the Woman's College and the drill, someone has suggested that Brown should henceforth be styled "Brown's Graded Military Institute for Both Sexes."

Seven Course IV. men have started in the gymnasium this term. They expect to attend twice a week, at least, until that "unmentionable period" comes around again. When one stops to consider the great benefits derived from even so short a course as this, it seems a wonder many more do not take advantage of it. This is an excellent opportunity to get even with your landlady; try it and see.

A Freshman once to Hades went,—
Some things he wished to learn,
But they sent him back to earth again,
He was too green to burn.

-Ex.

"Oh where in the world is my breath?

It's gone!" what distress in his glance.

But relief comes at last, for his breath

Was ascending the stairs in short pants.

—Oberlin Review.

The Institute Committee.

The Institute Committee met at 12 o'clock last Saturday in The Tech office. The committee is composed of the following men, all of whom are well known and influential in their respective classes:—

From '93 — A. F. Bemis, M. Gorham, W. G. Houck.

From '94—C. A. Meade, R. B. Price, C. W. Dickey.

From '95—C. F. Tillinghast, G. W. Hayden, G. Abbott.

From '96—J. A. Rockwell, Jr., C. G. Hyde, D. M. Bates, Jr.

Mr. Bemis was chosen temporary chairman, and Mr. Dickey temporary secretary. The four class presidents were empowered to

draw up a constitution for the committee, a draft of which was to be presented at the next meeting.

A long discussion of the objects, duties, and powers of the committee then ensued; the results will appear in a future issue of The Tech. For the present, meetings will be held every Tuesday at 4.15 P. M., in The Tech office, with the exception that the first two meetings are to be on Thursdays at the same time and place.

Mr. Price suggested that a representative man of Technology be made an editor of the University Magazine, if possible, that being the best means of giving Technology her proper position in the college world. Mr. Meade proposed that the Institute Committee in time endeavor to fill the position of a College Senate, if properly supported by the various classes, with a view to a better system of student government, The Dance question was spoken of, and uudoubtedly will receive proper attention in a very short time. The feeling against running Tech. parties for pecuniary gain seems to be very strong, and a decided improvement in Technology's social events may be confidently predicted.

THE TECH will keep the students well posted as to the doings and plans of the Committee, of which so much may be expected, if properly supported.

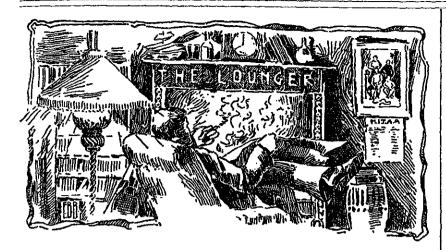
Sub Rosa.

The soft flute-notes float down the room,
We sit alone behind the portière,
—A jacqueminot just dropping from her hair,—
Her shinning, silken gown half lights the gloom.

A perfume faint of jasmine fills the air;
A dreamy waltz, "Reve d'amour," ebbs and flows,
And there, where lies the clinging, crimson rose,
Once, twice,—again, I kiss her golden hair.

The "german" still goes on, and no one knows
I tell the story old, behind the portière.
With downcast eyes she listens, the flower in her hair,
And then I kiss her once again, "beneath the rose."

-M. F. B.



"To what heights does the ready wit of man ascend!"

It was on one of our exceptionally characteristic wintry days, when the streets and pavements were fully as insecure as usual, that the Lounger, safely ensconced in a pair of spiked goloshes, was idly watching the hurrying throng on Boylston Street, whose laudable efforts to "stand firm" provoked many more philosophical thoughts than that above recorded.

A man came around the corner, and waved frantically at a passing car. But there was nobody to pull the bell rope. The horses gathered themselves together for a spurt, and, driven to desperation, the man gave chase, howling. He started across a glistening sheet of ice and fell, like many a tempted mortal before him, only harder. But he still howled. The conductor, emerging from the recesses of the crowded car, saw him, and pulled the rope. The man rose, proceeded onward; but, alas! only for a few steps,—the ice was too demonstrative, and wanted more, and, needless to say, got it.

The man looked hurt and reproachful, but rose to the occasion. The car waited, and the passengers watched. He was almost there, only a few feet more; but there were two too many (his own), and once again this tempted man succumbed. Cruel odds! But in the end he conquered. Seated disconsolately on the ice, he swore, but was pardoned. Painfully leaning forward, he unlaced his shoes. Removing them gently, as befitted the occasion, he tucked them carefully away beneath his coat, and treading bravely o'er the treacherous ice, he climbed upon the car. The conductor merrily clanged the gong, the horses started forward, and the Lounger, meditatively watching the back platform, where sat unconquered the man relacing his shoes, gave voice to the thought that provokes this reminiscence.

Shall we pity or congratulate the departed friends who, driven forth from the shadow of old Rogers by

heartless, though, alas! so well-considered words of our august Faculty, no longer grace our fleeting hours with their merry greetings? Heedless of the blow to come, they have sauntered carelessly from lecture to recitation, from "cuts" to the chapel, with never a thought of the morrow, or the sufficiency of the evil of to-day.

They are a jolly crowd, the Flunked Contingent, and the Lounger misses them. They led such a Bohemian existence, and they were such deadly enemies of the grinds! They provoked the sarcasm of the Profs., true, but surely is not that an enviable distinction? Many times they failed, but is it not written, that tho'

"Glorious it is to wear the crown
Of a deserved and pure success,
He who knows how to fail has won
A crown whose lustre is no less?"

And verily, they have known how to fail.

And therefore the Lounger answers, let us congratulate the Flunked Contingent on a new life of "gaillardise," and pity ourselves, who, mourning our gay companions of yore, rest still within the pale of the Faculty's grim jurisdiction, and try to be glad because we still are slaves.

Freed from bondage, they give us a degree; but sometimes 'tis a bootless game, and the candle is too often but a puny wick. However, the philosophers say it is good for men to work, and the Lounger isn't sure they're not right. Only he does at times envy the Flunked Contingent.

The Lounger has run across the following marginal notes found in a second-handed "Notes on Heat," purchased at the Co-operative Store: I needed a shave, and I had forgotten to take my razors to New York, but there was a barber's shop on the other side of the street. The small boy who opened the door handed me a printed card. I wondered what it meant, and read: "Customers are supposed to be gentlemen. No flirting or mashing the attendants allowed. Conversation on any subjects but those of general interest strictly forbidden." On looking around the room, I saw what if all meant, for the barbers were all women,—women who in their black dresses and clean white caps and aprons, looked neat, attractive and pretty. I did not talk, but wondered while I was being shaved whether I might not need one twice a day.

There was another entry, which, being deemed worthy of perpetuation, is dedicated to the author in in the following form:—

I fell asleep in the bath-tub,
I dreamed I was drowned, and — well,
Tom found me, turned on the hot water,
And I dreamed I had gone to ——.



The man who knows it all
And keeps it, we adore;
But he who knows it all
And tells it is a bore.

-Lockport Journal.

Let not his death your vision dim
With sympathetic tear;
His fate's twin scales are balanced trim
To justice. For it's clear,
Since beers have often loaded him,
He ought to load a bier!

-The Syracusan.

Two dollars in—there are clouds, you know, Hence, vain repining! "So to the theatre she wont go! With a silver lining.

-Trinity Tablet.

SEA SHELLS.

Hold your ear close to this shell; Wait while I coax the sea note Out of my deep organ's throat, Hold your ear close, listen well.

Nay, I've a note to my hand;
If I but sound it—Farewell,
Sea music's gone from your shell!
Now for the thirsty white land;
All this note means is sand.
Hear the cool sea music swell.

Hold your ear close to this heart;
Wait while I find the love chord
On the world's wide organ board.
There! your eyes tell me in part
How the good harmonies start.

Hold your ear closer awhile;
One more note—dare you await
This bitter treble of hate?
God has some shells in the pile!
That's plain enough for your smile.

-Harvard Monthly.

"Who is the belle to-night?" asked she,
As they stood on the ball-room floor.
He looked around the room to see—
And she speaks to him no more.

-The Oracle.

My love is like a lily,
So beautiful, so fair;
She bears herself so daintily,
With such a queenly air.

But I am a poor man,
To love her is a sin.
Alas! the lily toils not,
And neither does she spin.

-Oberlin Review.

DEFORE THE STORM.

On eastern hills the warm light falls,
On belfry heights and ivied walls,
Across the lake long shadows creep,
The weary roses nod in sleep,

Night enters now the world's wide halls.

Through gathering gloom the plover calls, And silent forest sentinels, Their solitary watches keep On eastern hills.

The woodman as he homeward crawls.
Knows that the lull which now enthralls
Valley and height in slumber deep,
Foretells the tempest soon to sweep
In wild, tumultous madrigals,
On eastern hills.

-Columbia Spectator.

SKATING SONG.

The stars shine bright thro' the frosty night,
And the lake is smooth and glistening,
The moon hangs low o'er hills of snow,
With shout and song the skaters go,
While the silent pines are listening.

The dark shores glide on either side;
Their form in the dimness dying;
How fleet, how fleet, our hurrying feet
Their ringing music sharply beat,
In the path of the North wind flying.

No care I know can hasten so;
We are far too fleet for sorrow;
Our hearts are light, and our joyous flight
Leaves all that is cheerless far from sight,
The past, and the fear for to-morrow.

Then once more turn, the smooth lake spurn
Beneath our feet, and glowing,
A something real of joy we feel,
While the ice resounds to the striking steel,
And the winter wind is blowing.

—Nassau Lit.

QUATRAIN.

Those indolent persons who carefully try, All mental exertions to shun, Apply but the rule as they lazily live, That "half a loar's better than none!"

-Williams Weekly.



OUR NEW SHIRTINGS

Are now ready. French Madras, English Oxfords, Scotch Cheviots and Wash Silks. For Men's Negligee and Outing Shirts; for Ladies' and Children's Waists and Blouses, or sold by the yard.

THE PRINCE'S CRAVAT FOR GENTLEMEN, NEW.

Also, English Long Scarfs, The London Puff, and New Ascots.

Gloves made to our special order. The New Gold Tan, the Famous London Tan at \$1.35, Fowne's New Cavendish Tan, Fowne's Red Tan.

Shirts for Business Wear, Outing, Negligee, Traveling, and Dress Occasions, most thoroughly made, and always in stock for immediate use.

Pajamas, or East India Sleeping Suits and Long Night Shirts, made from the best English Flannel, Cotton and Silk, for Steamer, Sleeping Car, Yachting or Hunting; Medium and Heavy Weights for Men and Children.

Ladies' and Men's English Silk Umbrellas, in choice and entirely new designs, in Gold, Silver, and Natural Wood Handles, are just opened, \$2.75 to \$35, at Noyes Bros'.

NOYES BROTHERS, Washington and Summer Streets.

Blazers, Sweaters. Tennis Suits.



And Clothing of all kinds,

CLEANSED OR DYED

and carefully pressed.

ALSO A

FINE FRENCH LAUNDRY DEPARTMENT.

LEWANDO'S

French Dyeing and Cleansing Establishment,

17 Temple Place, BOSTON.

365 5th Avenue, - - NEW YORK.

Bundles called for and delivered.

St. Botolph Hall.

NEW TECH. DORMITORY.

Favorably situated at the corner of St. Botolph and Harcourt Streets, near all the Departments of the Massachusetts Institute of Technology.

Furnished Suites

To let, including heat and baths.

Restaurant

In Building.

For terms apply on the premises.

GODFREY MORSE, PROPRIETOR.

F. L. DUNNE,

TAILOR AND IMPORTER,

Transcript Building, 328 Washington St., cor. Milk St., BOSTON.

SHOES

To be entirely Satisfying should have EASE, GOOD STYLE and DURABILITY.

This trio of Essentials are possessed by the



FINE SHOES,

And we respectfully request Ladies and Gentlemen intending to purchase to allow us the privilege of trying on a pair; to see and feel this Shoe upon the foot, is to make a customer.

POPULAR PRICES

HATHAWAY, SOULE & HARRINGTON (Incorporated).

35 BOYLSTON STREET, Between Washington and Tremont Streets, BOSTON.

T. E. LOVEJOY, Manager.

You can save fully 25 per cent by purchasing your Fall Suit and Fall Oversack from

LEOPOLD MORSE & CO.,

Cor. Washington and Brattle Streets.

We manufacture all our clothing, and have exclusive patterns in over one hundred styles especially adapted for young men.

AN INSPECTION OF OUR LARGE STOCK IS SOLIGITED.

L. E. FLETCHER & CO.

HATTERS AND MEN'S OUTFITTERS.

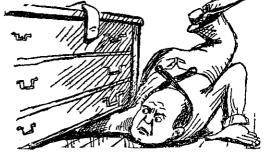
Hats in Leading and Correct Styles for Young Men. • • • •

Novelties in Neckwear, Gloves, Hosiery, and Underwear.

CANES, UMBRELLAS, Etc.

158 BOYLSTON STREET (odd. Common), BOSTON.

SWELL" STYLES.



A DRESSING CASE.

Mew designs in Dress Studs or Buttons \$1.00 \$1.50 and \$2.00 Scarf Pins, \$1.00 1.50 2.00 Link Buttons, \$1.00 1.50 2.50

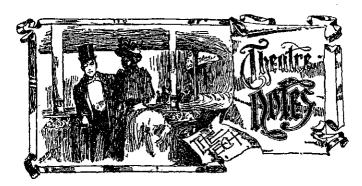
NICETIES FOR MEN'S WEAR.

Neck Dress (choice effects) . 50c. to \$2.00 Crocheted 4 in hands, all colors . \$2.00 Embroidered Suspenders . \$1.00 to \$7.00 Gloves (lined or unlined) . \$1.50 to \$5.00 Umbrellas, good things . \$2.00 to \$20.00 Neck Mufflers and Dress Shirt Protectors. Ladies' Embroidered Garters and Handkerchiefs.

Y. Men's Furnisher.

509 Washington, cor. West Street, 641 Washington, cor. Boylston Street, BOSTON, MASS.

Boston THEATRE.—
Monday, February 20th,
"The Country Circus."
Evenings at 8; afternoons
at 2.



TREMONT THEATRE.—
Monday, February 20th,
Neil Burgess in "The
County Fair." Evenings
at 8; afternoons at 2.

Hollis Street Theatre. — Monday, February 20th, Nat Goodwin in "A Gilded Fool." Evenings at 8; matinees at 2.

Columbia Theatre.—Monday, February 20th, Rice's Surprise Party in "1492." Evenings at 8; afternoons at 2.

Boston Museum. — Monday, February 20th, "Shore-Acres," a play illustrative of New England life. Evenings at 8; matinees at 2.

GLOBE THEATRE.—Monday, February 20th, "Ali Baba." Evenings at 8; matinees at 2.

BOWDOIN SQUARE THEATRE.—Monday, February 20th, "The Soudan." Evenings at 8; matinees at 2.

CO-OPERATIVE TAILORS

TO NEARLY ALL THE SCHOOLS AND COLLEGES.

FRANK D. SOMERS,

No. 5 Park St., Boston.

Special designs in Woolens for Student trade. We do the largest Student trade of any fine tailoring firm in the country.

IMPORTERS, MANUFACTURERS, JOBBERS AND DEALERS IN

FINE HATS AND FINE FUF

377 and 379 Washington Street, opp. Franklin Street, Boston, Mass. we aim for the finest and best. New and correct styles.

Seal skin garments to order, tailor measure, fit guaranteed. Furs received on storage, insured against moths a

The Photographer

Hastings

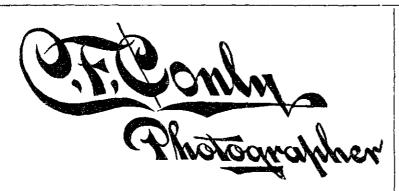
Is now located at his **New Studio**, with Reception Room and Atelier o Flight from the Street,

146 TREMONT STREET, OVER HUYLER'S, BOSTON, MASS.

Awarded the Grand Prize by the Photographers' Association of Amc Washington, D. C., 1890.

TELEPHONE CONN:

CO.,



465 WASHINGTON ST., BOSTON.

CLASS WORK A SPECIALTY.

All sittings made by the proprietor.

GENTLEMEN!

I wish to call your attention to the fact that I am paying the highest Cash Prices for Cast-off Clothing. Also Cleaning and Repairing done at short notice. Send postal to

M. KEEZER,

613 Shawmut Ave., Boston, Mass.

COPLEY SQ. HOTE

Huntington Avenue No Exeter States American and European Plans.

Cafe open from 7 A. M. to 12 P. 1

F. S. RISTEEN

YOUNG'S HOTEL, BOSTC

J. R. WHIPPLE & CO.

J. R. WHIPPLE.

R. F. FORD.

J. B. WHIPPLE.

C. I. LINDSA

W. H. LAPOINTE.

C. M.

PARKER HOUSE, BOST

J. R. WHIPPLE & CO.

J. R. WHIPPLE.

R. F. FORD.

J. B. WHIPPLE.

C. I. LINDSAT

W. H. LAPOINTE.

C. M.

ARCHITECTURAL AND ART PHOTOGRAPHS,

For Students' use and for Room Decoration.

Special rates to Members of the M. I. T. Co-operative.

PHOTOGRAPH MOUNTING AND FRAMING.

SOULE PHOTOGRAPH CO., 338 WASHINGTON STREET, BOSTON, MASS.

SPECIAL ATTENTION IS CALLED TO THE HIGH GRADE OF PAPERS-THE MAKERS CLAIM FOR THEM "THE BEST IN THE WORLD"-FOR POLITE CORRESPONDENCE, THESIS WORK, COMPOSITIONS AND LECTURE NOTES (with various sizes of Covers to fit). Sold by

C. E. RIDLER, Stationer, Cor. Boylston and Berkeley Streets.

College Men Ride Columbias

THE COLUMBIA BICYCLE RECOMMENDS ITSELF

To the student of mechanics for its construction:

To the student in the arts for its

To the **athlete** for its speed:

And to all for its acknowledged excellence.

HAVE YOU SEEN OUR '93 CENTURY? Send for a Catalogue.

POPE MFG. CO., Boston, New York, Chicago, Hartford.

SCIENTIFIC BOOKS DAMRELL & UPHAM,
The Old Corner Bookstore,

STUDENTS, TRAVELING, BUSINESS. and PROFESSIONAL MEN Insure in the Atlas.

Preferred

While traveling by Steam, Electricity or Cable,

THE ATLAS ACCIDENT INSURANCE COMPANY,

OF BOSTON, MASS.

186 Devonshire Street, Boston, Mass.

Death by Accident.		Loss of Both Eyes, Hands, or Feet.	Loss of Right Hand or either Foot.	Loss of Left Hand	Loss of	Weekly In- demnity will be paid for 52 Weeks.
\$5,000	\$2,500	\$5,000	\$2,500	\$1,250	\$650	\$25
5,000	2,500	5,000	2.500	2,500	1,000	50

HENRY E. TURNER, Pres. HUGH BROWNE, Sec. and Gen. Mgr. Thos. M. EVERETT, Supt. Agencies. Any information in regard to Atlas Policies may be had of the Manager of Tech.

nd fire.

nly one

rica, at

ection.

treet.

& CO.

N.

HART.

ON.

HART.

DAME, STODDARD & KENDALL.

We have a Complete Line of

Football Goods, and General Athletic Supplies,

Also CUTLERY, FISHING TACKLE, SKATES, and HAND CAMERAS.

New England Agents for The Elliptic Wheel, as ridden by Johnson, time 1.56 3-5.

DAME, STODDARD & KENDALL,

374 WASHINGTON STREET, - - BOSTON, MASS.

THE

Brunswick

(American Plan.)

Museum of Fine Arts, New Old South, Trinity (Phillips Brooks's) Church, and OPPO-SITE INSTITUTE of TECHNOLOGY.

BOSTON'S

Grandest Hotel

BARNES & DUNKLEE

Proprietors.



THE Victobia

Nearest European Plan Hotel to M. I. T.)

In the Centre of Boston's Fashionable District,

THE BACK BAY.

Opened November, 1886, and within one week, the *Traveller* said, "It has established itself as the Delmonico of Boston."

BOSTON

FOREIGN BOOKSTORE.

CARL SCHOENHOF,

144 Tremont St., Boston, Mass.

Liberal Discount to Tech. Students,
Especially on Works imported to order.

STUDENTS'

Note-Books, Paper, Envelopes, Stylo. Pens, and Fairchilds and Franklin Pens, etc.

H. H. CARTER & Co., 3 Beacon St.

"CO-OPERATIVE STORE."



NEW MAIL.

CUSHION TIRES, \$100.

PNEUMATICS, \$120.

INTERCHANGEABLE PARTS.

ALL DROP FORGINGS.

INIERCHANGEABLE PARIS.

Also, \$135 and \$150 GRADES; LADIES' \$100 and BOYS' \$35.

HANDSOMEST AND BEST WHEELS.

SECONDHAND WHEELS ALWAYS ON HAND.

GET CATALOGUE.

WM. READ & SONS, Manufacturers,

107 WASHINGTON STREET

BOSTON



The Richmond Straight Cut No. 1 Gigarettes.

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.

The Richmond Straight Cut No. 1 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.

The ALLEN & GINTER Branch of the American Tobacco Co., Manufacturers, RICHMOND, VIRGINIA.

I. H. FARRINGTON,

Merchant Tailor,

411 WASHINGTON STREET, BOSTON.

Suits to order, \$30, upwards. Overcoats to order, \$30, upwards. Trousers to order, \$8, upwards.

Dress Suits to Let.

J. P. BOND, GENTLEMEN'S FURNISHING GOODS. NECKWEAR.

OUR \$1.00 OPEN FRONT AND BACK SHIRT A SPECIALTY.

Also, full line Collars, Cuffs, Underwear, Gloves, etc.

141 DARTMOUTH ST., BOSTON.

Agent Dartmouth Laundry. Work called for and delivered.

D. TOY.

TAILOR TO THE HARVARD CO-OPERATIVE.

71 BEACON STREET, BOSTON, MASS.

Opposite Public Garden.

Agent for Whitaker & Co. and Hill Bros., London, W.

Typewriters at the World's Fair.



The Remington Secures the Exclusive Contract.

The Committee of Ways and Means of the World's Columbian Exposition has awarded to Wyckoff, Seamans & Benedict (Remington Standard Typewriter) the contract for furnishing all the writing machines to be used on the Exposition grounds during the Fair. A large number will be placed at convenient points throughout all of the buildings, and are intended for the accommodation of the general public, representatives of the press, and the officers of the Exposition.—Chicago Sunday Herald, August 7, 1892.

WYCKOFF, SEAMANS & BENEDICT, 15 SCHOOL STREET, BOSTON.

GEO. H. GREENWOOD,

9 & 11 Boylston St.

Importer of French and English Briarwoods, Meerschaums and Fine Smoking Mixtures.

O. A. JENKINS & CO.,

COLLEGE ELATERS.

CORRECT STYLES.

BEST QUALITY.



HEATH'S LONDON + HATS

A well-selected line of

MACKINTOSHES
CANES and UMBRELLAS.

407 WASHINGTON STREET, BOSTON.



Preparation for the

Established in 1828.

Massachusetts Institute of Technology.

THIS HAS LONG BEEN A SPECIALTY AT

CHAUNCY HALL SCHOOL.

REFERENCE is made to the INSTITUTE FACULTY 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.

No. 393 Boylston Street, Boston.

SOCIETY PINS, BADGES, PRIZES, Etc., IN GOLD AND SILVER

H.M. RICHARDS & CO.

MANUFACTURING JEWELERS, 7 CREEN STREET. - . . .

BOSTON.

UNIFORMS

CAPS AND GOWNS

We supply correct uniforms to Military Institutes in all parts of the United States.

We also supply Caps and Gowns for Graduating Classes of Universities and Colleges.

For particulars write to

G. W. Simmons & Co.,

Oak Hall, 32 to 44 North Street, Boston.