

College Clothes

Many new and exclusive styles for young men, hand tailored by the best craftsmen.

A. SHUMAN & CO.
BOSTON

The Copley Florist

N. Fishelson

14 and 18 Huntington Avenue, Boston

Pierce Building

Floral Designs for all Occasions

Tel. 21671 Back

DISCOUNT TO TECH MEN

Tech Drug Store

Chemicals, Reagents and Acids AT SPECIAL PRICES

Sachets, Perfumes, Toilet Articles

New Tech Seal Cigarettes

All Popular Brands of Cigars

T. METCALF CO.

COPLEY SQUARE
39 TREMONT STREET

Stowell & Co.
24 Winter St.
Jewellers and Importers of Novelties



GENTLEMEN
WHO DRESS FOR STYLE
NEATNESS, AND COMFORT
WEAR THE IMPROVED

BOSTON GARTER

THE RECOGNIZED STANDARD
The Name is stamped on every loop—

The *Velvet Grip* CUSHION BUTTON CLASP

LIES FLAT TO THE LEG—NEVER SLIPS, TEARS NOR UNFASTENS

Sample pair, Silk 50c., Cotton 25c. Mailed on receipt of price.

GEO. FROSTCO., Makers
Boston, Mass., U.S.A.

ALWAYS EASY

MECHANICAL ENGINEERS

(Continued from page 1.)

after the naphthas have been removed, which is pumped into the cylinder early in the compression stroke. Previously a considerable volume of steam at slightly more than atmospheric pressure is taken into the cylinder along with air from the crank case and a few drops of cold water injected under pressure, so that the explosive charge is a mixture of oil, water vapor and air. It is a fact that the steam and water contribute in a marked degree toward the satisfactory performance of this type of engine, not only preventing occasional violent explosions due to irregular ignition, but also materially reducing the quantity of fuel required to develop power at a given rate. Just why a greater economy results from feeding a substance like water which hinders rather than aids the combustion (at least while the temperature is rising) is not well understood. It is, however, a matter of considerable interest, for if one may predict from the efforts of gas engine designers today, future developments will probably involve a modification of the usual four-stroke-cycle with explosion at constant volume, in favor of some method by which the rapidity of combustion can be controlled and the maximum pressures lowered. Dilution of the fuel charge with water vapor is one of the simplest means for thus dampening the violence of explosions. In the Mietz and Weiss engine the steam required is generated in a water jacket which forms a sort of boiler enveloping the cylinder. The cylinder also receives cold water through a sight-feed cock, the quantity being only a few drops per revolution.

A change has just been made in the teaching staff of the Mechanical Engineering Department. Mr. Kenneth Moller, who was instructor in the engineering laboratory, has resigned to engage in the design and development of the Fuel Oil engine, a new type of two-cycle oil engine about to be manufactured in Providence. His position has been taken by Mr. E. O. Hiller, formerly with the National Blank Book Co., of Holyoke. Mr. Hiller is well known to Institute men, having been at one time instructor in mechanical engineering drawing.

MINING THESES

(Continued from page 1.)

E. T. Almy, Jr. The Concentration of Ore from the Kerr Lake Mine, Cobalt, Ont. Two grades of ore.

P. H. Black, E. T. Chapman, T. G. Chapman, and C. H. White—The Treatment of an Ore Containing Gold, Silver, and Lead from Nevada, including stamping, amalgamation, concentrating, and cyaniding.

M. S. Clark and R. F. Munoz—The Washing of Coal. Experiments are being made on some of the Penn. coal, and these will be followed by work on some of the low grade coal from Mexico.

A. E. Burt and M. J. Daly—Concentration of Ore from the La Rose Mine, Cobalt, Ont. There are two grades of this material being treated.

L. S. Gordon and G. Miller—Concentration of a Missouri Lead Ore.

N. B. Gregory and P. B. Lord. Geological Work Upon a 12-foot Quartz Vein at Sheldonville, R. I.

V. C. Grubman and G. A. Joslin. Experiment Upon the Use of Litharge in Assaying Sulphide Ores.

F. Jaeger and P. H. Mayer—Work Upon the Constitution of Copper-nickel Sulphides.

Zoomis and Putnam and Webb—Work Upon a Cupriforous Pyrite Ore from Milan, N. H.

F. C. Merriman and H. J. Stiebel—A Study of the Effect of Carbon Upon Copper-nickel Alloys.

R. O. Reed and H. Schaffer—Work Upon Typical Gold Ore from South Africa.

E. N. Loring and W. R. Reilly. Concentration Tests Upon Ore from the Coniagas Mine, Cobalt, Ont.

G. C. Hammond and F. H. Soderstrom—Cyanide Treatment of Gold Ore.

J. K. Tse—An Investigation of the Separation of Quartz and Galena by Wilfley Table.

C. Y. Wen—The Heat Formation of Some Ferro-calcic Silicates. Continuation of his Undergraduate Thesis.

J. A. Pearce and B. A. Robinson—Geological Study of the Peabody Granite.

STONE & WEBSTER ENGINEERING CORPORATION

CONSTRUCTING ENGINEERS

DWIGHT P. ROBINSON.....President and General Manager
HOWARD L. ROGERS.....Vice-President and Treasurer
GEORGE O. MUHLFELD.....Construction Manager
WILLIAM N. PATTEN.....Engineering Manager
THORNDIKE N. ENDICOTT.....Purchasing Agent

147 MILK STREET - BOSTON, MASSACHUSETTS

OTIS ELEVATOR COMPANY

53 State Street, BOSTON

Electric and Hydraulic Elevators
ESCALATORS (Moving Stairways)

MAKER TO WEARER
THE SPHINX
\$200 HAT
412 WASHINGTON ST. BOSTON
SPRING STYLES

T. J. SOUTHWELL
Stationer and Newsdealer

Circulating Library Laundry Agency
Ladies' and Gentlemen's Furnishings
66 HUNTINGTON AVENUE, BOSTON
Near cor. of Irvington Street

M. J. HANNIGAN
formerly of Hotel Lenox has leased
The Tech Barber Shop, Hotel
Westminster. Special attention
paid to students. All Haircuts 25c.

"THE LITTLE PLACE
'ROUND THE CORNER"
COPLEY LUNCH
QUICK SERVICE

THE STUDENT'S DRUG STORE
UNDER COPLEY SQUARE HOTEL

We make a special effort to merit
the patronage of our student
friends
Don't forget the address, under Copley Sq. Hotel

HERRICK TICKETS
ALL THEATRES
COPLEY SQUARE
Telephones 2329, 2330 and 2331 Back Bay


McMORROW

College Shoes for College Men

238 Washington Street, Boston, Mass.

OPPOSITE YOUNG'S HOTEL

"THE GIRLS ARE FOND OF THESE"



Tech Emblems
Greatest Variety
Lowest Prices

BENT & BUSH
15 SCHOOL ST. BOSTON, MASS.

GEO. H. ELLIS CO
Printers
No. 272 CONGRESS STREET
BOSTON, MASS.
Phone, 3549

MORSE & HENDERSON
Tailors
18 BOYLSTON ST. Rooms 14-15
Telephone Oxford 99 BOSTON

OUR FABRICS for SPRING and SUMMER
are ready for your inspection.

SPECIAL DISCOUNT TO TECH MEN

HIGGINS'

Drawing-Inks
Eternal Writing-Ink
Engrossing-Ink
Taurine Mucilage
Photo-Mounter
Drawing-Board Paste
Liquid Paste
Office Paste
Vegetable Glue, Etc.

Are the Finest and Best Inks and Adhesives. Emancipate yourself from the use of corrosive and ill-smelling inks and adhesives and adopt the Higgins Inks and Adhesives. They will bear revelation to you, they are so sweet, clean, and well put up.

At Dealers Generally.

CHAS. M. HIGGINS & CO., Mfrs.
Branches: Chicago, London
271 Ninth Street, Brooklyn, N.Y.



ARTISTS PROOFS



VELLUM PHOTOGRAPHS

160 TREMONT ST.
BOSTON
NEAR KEITH'S

TECHNOLOGY PHOTOGRAPHERS FOR 1909