

Tutoring in Mathematics, Engineering, Physics, Astronomy

Hours: Evenings and by appointment

G. B. Collier, B. S., A. M.

10 WARE HALL

HARVARD & REMINGTON STREETS

Phone Camb. 4456-M



Students' Clothes

J. C. LITTLEFIELD

High Class Tailor

12 BEACON STREET

Evening Clothes a Specialty

Richards School of Dancing

HUNTINGTON CHAMBERS

30 Huntington Ave. Boston

Private and Class Lessons

Tel. B. B. 56060

Special prices to students



STONE & WEBSTER

FINANCE public utility developments.

BUY AND SELL securities.

DESIGN steam power stations, hydro-electric developments, transmission lines, city and interurban railways, gas plants, industrial plants and buildings.

CONSTRUCT either from our own designs or from designs of other engineers or architects.

REPORT on public utility properties, proposed extensions or new projects.

MANAGE railway, light, power and gas companies.

NEW YORK BOSTON CHICAGO



Hotel Lenox

An hotel which has the atmosphere of a college club.

Historic as a stopping place for University Athletic Teams.

Unusually attractive to college men—graduates or undergraduates.

Popular for its dances in the Rose Garden from 10 P. M. to 1 A. M. Saturdays 9 P. M. to 12 P. M.

L. C. Prior, Managing Director

ORCHESTRA FOR NEXT WEEK'S CONCERT PICKED TOMORROW

At the rehearsal of the Technology Orchestra called for 2 o'clock in the Caf tomorrow afternoon, the players for the Wakefield concert next Friday will be chosen.

NITRATE SHORTAGE U. S. MILITARY WEAKNESS SAYS EXPERT

United States Dependent on Chile for Present Supply

During the Christmas recess Dr. Arthur A. Noyes, professor of Chemistry in the Department of Chemistry at the Institute, addressed the American Psychological Association on the subject "Nitrogen and Preparedness." He stated that due to the noticeable lack of nitric acid a vulnerable spot has appeared in this nation's military resources which ought to be rectified at once. He also said that the supply of nitric acid used in the United States has principally come from the saltpetre beds in Chile, and that in the event of war this supply might be cut off from lack of ships or should our ports be closed.

Dr. Noyes, who is one of a committee of chemists appointed by the National Academy of Sciences for the purposes of making investigations for the Government in its preparedness program, suggested that the Government should lay in a supply of about 250,000 tons of nitric acid or about 300,000 tons of saltpetre which would be sufficient to produce ammunition to last this country one year in case of war, or until other sources of supply could be developed. He stated among other things that the cost would be \$15,000,000, but it would be cheap for the security it would provide.

Professor Noyes also estimated that \$3,000,000 would be added to the value of American crops if the cost of fertilizer could be reduced to two-thirds of its present price and applied to the grain crop.

ENGINEER CORPS BUILDS DOUBLE LOCK SPAR BRIDGE

Under the instruction of Captain Downing the Engineer Corps built and set up a double lock spur bridge in the basement of Building 1 yesterday afternoon. These bridges are constructed out of logs about ten to twelve feet long and are fastened together with Manila rope. After the bridge was completed Captain Downing gave a short talk on the uses and advantages of this sort of bridge in military operations. He also remarked that he was sorry these bridges could not be left up and further work done on them, but that even though these were not thoroughly finished, still the men had derived a great deal of benefit from the handling of these heavy logs. He closed by praising the men for their aptness and said that the next drill period would be used to show how the block and tackle is used.

Some of the men worked on the boxes for the sand models from which trenches and breastworks can be formed in miniature. Also there were some members of the Corps employed in drafting during this hour.

WRESTLERS TACKLE BROWN AT PROVIDENCE NEXT WEEK

The wrestling team is to meet many good teams this winter. With the exception of the Harvard and the Tufts meets, the wrestling schedule has been definitely arranged. As there is no gym there will be no home meets this year, although the Intercollegiate Meet will probably be held at the Cambridge Y. M. C. A. in March. During the mid-year vacation the team will wrestle the Pennsylvania State College at State College on Monday, Jan. 29, and the University of Pittsburg at Pittsburg on Friday, Feb. 2. Penn State has practically the same team as last year, so a very close meet is expected. It is unknown what Pittsburg will do as wrestling is a new sport there. Coach Higgins requests all varsity candidates to report as often as possible so as to get in condition before the Brown meet on Jan. 13.

The schedule to date is as follows.
Jan. 13—Brown at Providence.
Jan. 29—Pennsylvania at State College.
Feb. 2—Pittsburg University at Pittsburg.
Feb. 10—Harvard at Cambridge (pending).
Feb. 24—Tufts at Medford (pending)
Mar. 3.—Intercollegiate.

JUNIOR STATISTICS DUE WEDNESDAY

On account of the late date of sending out the blanks for Junior Class Statistics the Technique Board has decided to extend the date for handing them in. They should be left at the Caf or at the Technique Office, Room 1-075, before 5 o'clock on Wednesday, Jan. 10.

A copy of Technique 1918 will be awarded to the man handing in the most original and humorous set of answers. Blanks may be obtained at the Caf or at the Technique office.

MR. MANSFIELD TALKS TO CATHOLIC CLUB

Former Secretary of the Commonwealth Speaks on State Finances

Wednesday night the Catholic Club held its regular monthly meeting in the Caf. Mr. Frederick W. Mansfield, former Treasurer of the Commonwealth, was the principal speaker. Mr. Mansfield spoke on "State Finances."

The speaker explained in detail how a state raised money, mentioning in particular the "sinking fund" bond and the serial bond as means to accomplish this. Mr. Mansfield told of the difference between these two sorts of bonds and dwelt especially on the inferiority of the sinking fund bond. He stated that the sinking fund bond takes care of the principal only, while the serial bond, owing to the serial payments, continuously reduces the principal on which interest must be paid and consequently the amount of interest.

Mr. Mansfield touched briefly on the different phases of state and municipal credit. Massachusetts has the best credit of any state in the Union and its bonds are as acceptable as Federal bonds because of the fact that all of its bonds were paid in gold, both principal and interest, and none have been repudiated. In closing he told of the introduction of the popular bond in Massachusetts and advanced the theory that the enormous debt of this Commonwealth could be canceled by the introduction of serial bonds instead of the existing sinking fund bonds.

A short business meeting followed the talk. The new Constitution was brought up before the members, but was laid on the table until the next meeting which will be held on Wednesday, Feb. 7.

NEW MEMBER OF CORPORATION

Mr. Otto H. Kahn Recently Elected to the Institute Corporation

President Maclaurin has announced that at a recent meeting of the Institute Corporation, Otto H. Kahn was elected a life member. The election of Mr. Kahn is in accord with the policy of Technology of nationalizing its governing body. The election fills one of the vacancies which were caused by the death of Percival Lowell and the resignation of Howard Stockton.

Mr. Kahn, who was born in Germany, lived some time in England, and has been in this country for nearly a quarter of a century. He is well acquainted with European thought through frequent trips abroad, is a remarkable linguist, and is noted for his interest in education. The most prominent of his educational gifts is probably the Kahn Foundation, which, till the outbreak of the European war, awarded acations in Europe to college professors so that they might be better fitted for their teaching in this country.

ANTHROPOMETRIC CHARTS

The Department of Physical Training announces that the anthropometric charts of the Class of 1920 are now ready and may be secured in Coach Kanaly's office at the track house. The charts represent the physical condition of the men at the beginning of the college year and are so designed that the student may tell at a glance what defects should be corrected by exercise. In order to take the physical examination at the end of the term the charts must be kept and turned in at that time.

LOST ARTICLES

The following is a list of articles which have been found around the Institute and may be obtained at Room 3-005 upon identification:

Two black fountain pens, stylographic pen, compass, small black purse containing eighty cents, pearl-handled knife, Ingersoll watch with fob bearing inscription "Souvenir Dedication of the Largest and Most Sanitary Fish Pier in the World," metal piece belonging to a musical instrument, copy of the "University Club," copy of the "Seventh Annual Report of the Railroad Commission of Indiana," copy of the "Physikalische Apparate," copy of the "New Complete Trigonometry," "Problems in Physics," "Power Test Code," a No. 3 Brownie Camera, triangular rule, one package of air-cocks, slide rule, pair of tan kid gloves, pair of tan wool-lined gloves, gray and white wool muffler, copy of "Analytic Geometry," pearl scarf pin, button marked "Assn. Street and Electric Railways," pair of rubbers, note book on engineering science, strip of Jamaica Plain tickets, silver knife with Beta Theta Pi inscription, two umbrellas, purple silk knitted scarf, green knitted scarf, black silk scarf, pair of woolen corduroy lined gauntlets, gray knitted scarf, and gray silk muffler.

—WHEN YOU GO OUT INTO THE WORLD

and equip your first laboratory perhaps you will have doubts as to what is the best apparatus to install for your particular requirements. Our experience as specialists on laboratory apparatus for sixty odd years is at your disposal. We enjoy such co-operation—invariably it leads to firm business friendship. There must be a reason.

Catalogs and descriptive literature gladly sent to enquirers stating their affiliations

EIMER and AMEND

Founded 1851

Industrial and Educational Laboratory Apparatus

Chemicals and Drugs

NEW YORK, N. Y.

OTTAWA, CANADA

PITTSBURGH, PA.

McMORROW

College Shoes for College Men

238 WASHINGTON STREET, BOSTON, MASS.

Opposite Thompson's Spa

Subway Haberdasher

Opposite Mass. Ave. Subway

PREPARE FOR WINTER

HEAVY UNDERWEAR, RUBBERS and GLOVES

ONE DAY LAUNDRY



Let the Beans Spill!

Such jars as those irk me not at all. I tie the can to care and bid misfortune go roll its hoop. You ask me whence the source of all this swank, swagger and supreme sassiness?—

Tuxedo
The Perfect Tobacco for Pipe and Cigarette

Smoke "Tux" for serenity, comfort and content. No other tobacco will please your taste so thoroughly and so permanently—you'll never tire of "Tux".

That's because it's made of Barley leaf—full of sweet flavor and rich relish. And because it's had all the harshness and "bite" taken out of it by the original and exclusive "Tuxedo Process," so that you can smoke it all day long with increasing pleasure and no regret.

YOU CAN BUY TUXEDO EVERYWHERE

Convenient, glassine wrapped, moisture-proof pouch . . . 5c

Famous green tin with gold lining, curved to fit pocket 10c

In Tin Humidors, 40c and 80c
In Glass Humidors, 50c and 90c

THE AMERICAN TOBACCO COMPANY

