

Notices and Announcements

All notices for this column should be in by the morning of the day preceding the issue.

OFFICIAL

R. O. T. C. JUNIORS

Juniors not already enrolled in the advanced corps of the R. O. T. C. have until December 20 to do so. The department announces that pay commences with enrollment.

FOUNDRY 283

During the week of November 26, the regular exercises of course 283 will be replaced by a trip to the foundry of the Walker Pratt Co. Trips will be made on November 26, 27, and 28, one of which every one enrolled in the course must attend. Meet at the company's office at 1:45 o'clock. Take car to Harvard Square and change to Waverly car. Get off at Dexter Street. Allow 30 minutes from the Institute. Attendance will be taken.

UNDERGRADUATE

FRESHMAN RIFLE TEAM

All candidates for the Freshman Rifle Team are to report at the rifle range at 5 o'clock Tuesday, Nov. 27, for the purpose of effecting a preliminary organization. An acting captain will be elected at this time.

SENIOR PICTURES

Senior photographs for the Portfolio Section of the 1925 Technique must be taken at Ye Craftsman Studio, 559 Massachusetts Avenue, Cambridge. Appointments should be made in the main lobby or in the Technique Office, 308 Walker Memorial.

JUNIOR UNIFORMS

Juniors having ordered R. O. T. C. uniforms may now obtain them at room 1-050. The shipment just received represents the first two-thirds of the total number ordered.

CHEMICAL SOCIETY

The Chemical Society will visit the factory of the Boston Woven Hose and Rubber Co. tomorrow, leaving from the lobby of Walker at 1:45 o'clock.

M. E. SOCIETY

The Mechanical Engineering Society will hold its final membership drive this week. This will be the last opportunity to sign up this year.

OXYGEN MOVIES

All students and instructors at Technology are invited to attend the moving pictures to be shown at 4 o'clock today in room 5-330. The picture is in four reels and is entitled, "Oxygen, the Wonder Worker."

CHEM. SOCIETY EXECUTIVE COMMITTEE

There will be a meeting of the executive committee of the Chemical Society at 5 o'clock today in the office of the Combined Professional Societies.

VI-A SMOKER

Course VI-A will hold a smoker in the north hall of Walker Memorial at 7:30 o'clock on Wednesday, November 28. Sophomores, Juniors, Seniors, and Graduates in the course are invited.

METALLURGISTS HEAR METAL HARDENING TALK

Dr. Zay Jeffries addressed about 90 Seniors and Juniors on "The Hardening of Metals" illustrating his lecture with lantern slides. The relation of the property of hardness to the slip was fully discussed. The theory of slip interference was explained by showing the properties of single crystals of metals and from these building up to the more complex ones of alloys.

This theory has been built up due to the use of the X-Ray Spectrometer similar to the one in the Physics Department. This machine is used in working out the atomic orientation of crystals of metals.

CHARLES G. DANA WILL SPEAK AT VI-A SMOKER

Charles G. Dana, General Manager of the Boston Elevated Company, will speak at the smoker of course VI-A which will be held next Wednesday evening in the north hall of Walker Memorial at 7:30 o'clock. There will also be boxing and wrestling exhibitions by the boxing and wrestling squads. One of the features on the program which promises to draw a lot of the electricians is the dancing girls and judging by the picture which is posted on the VI-A bulletin board they sure can shake a wicked leg.

All radio fans are cursing the rain last Saturday afternoon. At the exciting point rain penetrated to the announcer's microphone and those listening in received no news of Yale's touchdown till later.

FALL CONCERT

Tickets may be obtained from the following men and at the Musical Clubs Office. G. E. Parker '24, N. H. DeFoe '25, J. A. Hoxie '25, S. R. Spiker '25, W. P. Lowell '26, J. S. Moon '26, M. C. Dow '26, L. Fogarty '27, F. Meeker '27, A. W. French '26, E. B. Haskell '26, R. P. Hawkins '27, Gordon Wheeler '24, F. H. Hattley '27, J. W. Spence '25, R. DeLuccia '27, John Walker '26, Joe Burley '27.

DORM DANCE

The last informal Dorm Dance of the term will be held in the main hall, Walker, from 8 to 12 o'clock Friday, November 30. Morey Pearl's Orchestra will furnish the music.

HOLIDAY JOBS

The Undergraduate Employment Bureau is desirous of getting hold of any Holiday Jobs that may be available. Anyone hearing of such a job that they cannot handle themselves will do the Bureau a favor by reporting it to them. Anyone desiring a tutor for the final exams may apply at the office, room 7, Walker.

CHORAL SOCIETY

A rehearsal and business meeting of the Choral Society will be held tonight at 7:30 o'clock in room 5-330. It is essential that all members be present.

CORPORATION XV

Corporation XV will give a smoker in the faculty dining room, Walker, tonight at 6:30 o'clock. All members are invited.

MENORAH SOCIETY

On Monday, December 3, at 8 o'clock, a meeting and smoker of the Menorah Society will be held in the faculty and alumni room, Walker. Matthew Porosky '06 will speak on "Your Problem as an Engineer." All Jewish students are invited to attend.

TECH SHOW CAST

There will be a rehearsal of the cast of Tech Show in room 2-190 from 4 to 6 o'clock tomorrow evening. Please be prompt.

TECH SHOW CHORUS

Try-outs for the Tech Show Chorus will be held in north hall, Walker, at 4 and 5 o'clock tomorrow. Any men who have not yet tried out may do so at this time.

COLLEGE CLUB

There will be a regular meeting of the College Club tomorrow evening at Temple Israel, Commonwealth Ave., Boston.

M. I. T. POST S. A. M. E.

The M. I. T. Post, Society of American Military Engineers, will make a trip to the new fort on Hog Island on Saturday, December 1. The trip will be made on the U. S. Engineer boat "Executive," which will leave the Army Base at 2:15 o'clock. All members of the Engineer Unit, and all Sophomores interested are invited.

MATH CLUB

President Stratton will address the Math Club in the north hall, Walker, at 8 o'clock tomorrow evening.

WALKER LIBRARY HAS ROOM FOR NEW BOOKS

Walker Library will soon receive an acquisition of several sets of books by standard authors. Room for the new books has been made by transferring 180 volumes from the library to the Faculty Room. This change will not, however, affect the availability of the transferred volumes for general use since these books are to be considered as still belonging to the library and are to be used as formerly by library readers.

METALLURGISTS VISIT STEEL AND WIRE WORKS

Students taking Courses 3-43 and 3-431 took their third trip Wednesday going to the South Works of the American Steel and Wire Co. located in Worcester. The operations of making steel and wire for wire rope, cable, and other purposes were followed in detail.

The finishing, tapping and pouring of acid and basic openhearth were observed; the tapping of the latter being interesting as the Wellman furnace tips move forward bodily to pour the steel. After the moulds had cooled they were stripped from the steel ingots and rolled to billets. These billets, after reheating, were again rolled to 1-18 inches and then rolled into wire rod, four bars being rolled at the same time and then being coiled on reels in the same operation. The remaining operations were then followed through, which included the pickling, liming, baking, drawing, pot annealing, and the heat treatment known as patenting.

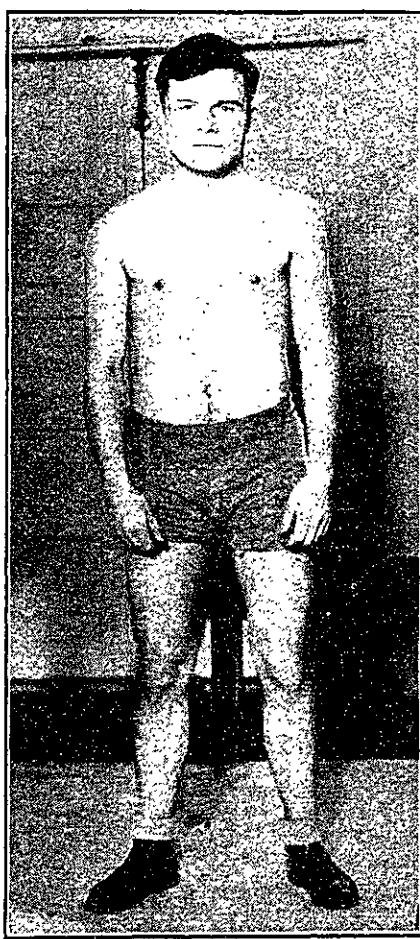
BOB SMITH NEW BOXING LEADER

Election Follows Resignation of Ed Moll

Following the resignation of Ed Moll, the election of Bob Smith to the captaincy of the varsity boxing team was announced. The vote was unanimous, for it is generally conceded that Smith is a born leader and will successfully pilot the team through a winning season. Bob is very popular with the leathery pushers, a factor which goes far towards good leadership. Practice is considerably enlivened by his genial smile while new men have received a ready welcome and hearty encouragement from him.

Smith Has Envious Record

Captain Smith has been connected with boxing at Technology for three



ED MOLL
Retired Boxing Captain

years, and has made an enviable record in pugilistic circles. He entered here in 1920 and made the frosh team that year. In his Sophomore year, he was a varsity man and a good point getter for Technology. Last season he had leave of absence but is back and going strong this year.

Bob boxes in the 125-pound class and is a pretty fast man in the ring. This summer he trained extensively with Spike Webb, the Navy coach, who is one of the best boxing mentors in collegiate circles. Under his tutelage, Bob has improved his speed and punch so that he is well in line for his customary place in the 125-pound class.

During practice, Smith is going to do some speedy workouts with Barrett, a Cambridge boxer who has agreed to exchange his time and knowledge of boxing for the privilege of using the gym for his workouts. Smith hopes to become even more speedy, as speed is the one factor that counts more than any other in intercollegiate boxing meets where there is a three round limit.

New Heavyweight Boxer

The heavyweight division is not very strong so far this year but the latest candidate appears to have good possibilities. Reeves, although never having come out while at Technology, has had past experience and has reported this year as a heavyweight.

This will enable Konrisky to box in the 159-pound class. He was out for the heavyweight division because there was a lack of men and he was the heaviest of those that reported. But with Reeves in this division, Konrisky can fight in a lower class which will be more suitable to his weight.

MILITARY SCIENCE MEN TO VISIT HOG ISLAND

The M. I. T. Post of the Society of American Military Engineers and the Engineer R. O. T. C. Unit will make an inspection trip to the new fort now in process of construction on Hog Island in Boston Harbor, on Saturday, December 1.

This fort is to be the most powerful on the Atlantic coast when the 15 inch guns are installed which are taking the place of the 12 inch guns formerly on the island.

Transportation from Boston to the Fort will be on the boat "Executive" leaving the Army Base promptly at 2:15 and returning about 5:30. Lieut. Adcock, C. E., in charge of the work, will accompany the party as guide. Sophomores are invited and those wishing to go should see Lieut. Levy or Lieut. Ogden.

WATER POWER SUBJECT OF ALDRED LECTURE

(Continued from Page 1)

liminary survey sufficient to map out the power development between the limits of its effect on the river. Then the necessary rights for development are secured from the government, land purchased or optioned for the site of the power house and dam, and lands which will be flooded by raising the river level.

Describes Financing of Project

As soon as these steps are taken, a company is formed to take over the property and rights. The capital stock of this company is sold to pay for these rights, and the preliminary expenses. To obtain funds for the dam, power house, and so on, a bond issue is floated. The bonds constitute a first mortgage on all the property of the company, and whatever property it may acquire in the future. Vice President Smith described in detail the conditions under which the bond issue is floated, and other matters relating to bonds.

It is now the duty of the Chief Engineer to take all the data and reports from the preliminary work, and design and build the power plant. These preliminary reports, according to Vice President Smith, often contain under estimates, because they are made to obtain money, and under such conditions even the most competent and reliable engineers are apt to under estimate, for, said Vice President Smith, "It is a human characteristic to think as we hope." For this reason the Chief Engineer is usually handicapped by finding that he may have to complete the project inside an inadequate allowance, which he perhaps had no part in establishing.

Water Stores Much Energy

Now comes very careful surveying of the site, geological study of the underlying strata, including rock borings to determine what weight the rock will carry. Besides these investigations, water records must be taken from the first, and should extend over a period of several years, according to Vice President Smith, 25 years not being too long.

Here Vice President Smith pointed out the incomparable advantages of water power as a means of storing power. He showed that other means of energy storage, as chemical or mechanical, could not approach the storage of water "in meeting the conditions required of length of time, large amounts of energy stored, and the ease of conversion when required."

The next part of the lecture, regarding design of the dam and power house, was largely technical. The choice of number of units, kind of turbines, type of generators, and design of the dam to withstand strains properly were explained. It was pointed out that it is common practice to drive the auxiliary machinery of a plant with a separate alternating current system, as a means of saving power.

Water Wheels Very Efficient

It was shown that only about 47 per cent of the entire expense of a water power development goes into permanent work, about 33 per cent not being for direct expenditures in the field, and about 20 per cent being temporary construction equipment.

As far as efficiency is concerned, Vice President Smith said that there is very little improvement to be made in our present generating equipment. Up to date water wheels are developing over 90 per cent of their theoretical power. Most generators are from 95 to 97 per cent efficient, and could be made more so if the cost were not prohibitive in most cases.

According to Vice President Smith, an improvement which will make possible the development of many water powers now out of the question on account of cost, will be the increase in speed of the units. In fact, there are now designs of turbines being brought out which are capable of speeds twice as high as those of the present Francis turbines. By doubling the speed, the cost of the hydraulic machinery will not be greatly effected, but the cost of the electrical machinery might be reduced 25 per cent, Vice President Smith believes.

Water Power Has Big Future

He said that the operating staff of a five or six unit station should not have to be more than 20 men, and he pointed out that if the station had a capacity of a 100,000 horse power, the number of men per horse power is very small. To take care of the operating staff, houses and roads are built, and railway connection is made, including a siding running into the power house.

BEAUTIES APPEAR AT DORM SMOKER

Affair Will Be Held in Hall of Carr Fastener Co. Tomorrow

The Dorm Smoker which is to be held tomorrow evening will not take place in Walker as is the usual custom, but will be held in the recreation hall of the Carr Fastener Company, which faces on the Technology rifle range.

It was rumored about the Dormitories that the Walker Memorial committee had refused to grant permission to hold the smoker in Walker on the grounds that the form of entertainment that was to prevail did not meet with their approval. Investigation however revealed that the rumor was false and T. F. Bundy '24, chairman of the committee, stated that the request for the hall had never been made.

The members of the smoker committee, when asked later about the matter confessed that the rumor was circulated for purposes of publicity only and in order to arouse interest in the affair. To state their own words the reason for choosing this hall as the scene of the smoker is "in order to have the desired privacy and independence that is necessary to make it a good snappy party and one to be remembered."

Chorines on Hand

Although nothing definite has been said of the form of entertainment chosen to amuse the men it is thought that a bevy of dancing girls will be present. On the bulletin board in Runkle are posted the pictures of several of these girls and the thing that every Dorm man notices about several of them is their lack of protection against the elements.

Invitations have been sent out to all of the men in the dormitories and from all indications it would seem that they intend to make it one of the big get together meetings during the year. Attendance at the smoker is restricted to dorm men and no others will be admitted.

BOX OF CANDY PRIZE AT NEXT DORM DANCE

Morey Pearl's Orchestra Will Furnish Music

A five pound box of candy will be the prize given to a lucky dancer at the Dorm dance which will be held next Friday evening in the main hall of Walker Memorial. The winner will be the person who is standing at the point of maximum bending moment in the floor at the end of one of the dances. It has not yet been announced who will determine the lucky point.

Morey Pearl and his nine piece Brunswick Record Orchestra will furnish the music. Tickets will be on sale in the main lobby from 12 to 2 o'clock today and tomorrow.

The patronesses of the dance are Mrs. L. M. Passano and Mrs. J. B. Babcock. The ushers will be L. C. Smith '25, M. L. Ash '26, William Gordon '25, John Buckler '26, G. G. Speer '25 and G. L. Pilon '26.

OXYGEN MOVIES WILL BE RELEASED TODAY

The first of the series of movies under the direction of the Combined Professional Societies will be held today in room 5-330 at 4 o'clock. Today's movies will be on "Oxygen, the Wonder Worker." This picture was produced under the direction of the U. S. Bureau of Mines and shows the uses of oxygen in nearly every industry in the United States. One of the reels will show the cutting of steel in reducing the nation's condemned warships to scrap. The movie is open to members of the faculty and student body.

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