

# THE TECH

VOL. XXVIII. No. 57

BOSTON, MASS., WEDNESDAY, MARCH 17, 1909

PRICE THREE CENTS

## MR. DUBOIS TALKS ON SALTING MINES

Philadelphia Mining Expert Gives Interesting Description

### MEANS OF DETECTION

Told of Before Society of Arts Meeting Monday Evening—Good Attendance

At the meeting of the Society of Arts Monday evening, Mr. H. W. Dubois spoke on "The Determination of 'Salting' in Mine Investigation."

The term "salting" may almost cover any dishonest misrepresentation of the true value of the mine. This may be done with the object of selling the mine at more than its real value, or the mine may be "salted down," that is, made to appear worth less than it really is, for the purpose of discouraging the stockholders to such an extent that they will sell their shares to the advantage of the designers.

The ways in which "salting" may be done are too numerous to mention. The most usual are: to distribute a large quantity of superior ore throughout the mine, so that upon examination the apparent ore of the mine will show a much higher percentage of the metal than is really present; to bribe the examining engineer so that he will return a favorable report; to change the reports either in part or wholly, or to add ore to the engineer's samples. This latter method is the easiest and the most often attempted.

As a means of detecting possible "salting," one method which often succeeds is to put samples of ore of a known value in tempting places, and later examine them to see if they have been tampered with. Also, it is a good plan to examine the ore of the surrounding country, and see if it compares in grade with that which is being tested. It is better to take a large number of small samples from many parts of the mine rather than to get a small number of large ones. There is really no absolute means for the prevention or detection of "salting," and the examining engineer must be constantly alert and guard the samples obtained with the utmost vigilance. Naturally he is at a great advantage, and the short time he has for the examination of the mine should be considered, as compared with the time the owners have had for "preparing" it.

Mr. Dubois concluded his lecture by showing some admirable lantern slides of the animal life of the district in which he has been.

## SEDGWICK CONSULTED

Professor Sedgwick, head of the biology department of the Institute, together with the engineering firm of Hazen & Whipple of New York, and a number of prominent sanitary engineers, has been recently engaged by the Jersey City Street and Water Board to investigate and report upon the purchase of the \$7,595,000 water plant, now under construction and adjustment in that city. The plan was approved by the engineers in charge, and has just received the sanction of Mayor Wittpenn of Jersey City, in an address to the taxpayers, urging the payment into court of the contract price, and leaving to the court the fixing of whatever deduction that shall be made from that sum. As a result the 50,000,000 gallons per day plant now owned by the Jersey City Water Supply Company will be taken over and operated by the city.

## AMHERST WINS BY SCORE OF 32-13

Technology's Defeat Partly Due to Sickness of R. C. Jacobs

### ATTENDANCE VERY BAD

Fine Exhibitions by Both Teams Given Before Scarcely Seventy-Five

In spite of a splendid showing for the first meet of the year, the Gym was defeated by Amherst by a score of 32-13. Handicapped by sickness of one member, and having but one entry in the Club Swinging, the team put up a game fight against the more experienced Amherst aggregation.

Captain Shoop and Tritch of Amherst were the star performers of the evening, while Gott excelled for Technology. Allen, Tech, did some splendid work on the High Bar.

Side Horse: Goodnow A. 22.7; Cary F. 21.7; Underhill A. 21.2; Alter T. 17.7. High Bar: Allen T. 21.8; Gott T. 21.2; Wakelee A. 21.2; Whitten A. 20.2. Tumbling: Baldwin A. 20.7; Tritch A. 20.4; Wilson T. 19.2; Jacobs T. 6.0. Club Swinging: Shoop A. 7.7; Whitten A. 7.5; Courtney T. 6.3.

Parallel Bars: Tritch A. 21.0; Shoop A. 20.9; Gott T. 20.5; Seelye T. 19.2.

Counting each first place 5, second 3, and third 1, makes up the total score of 32-13.

A duel meet has been arranged with the Boston Y. M. C. A., which will take place in the near future, probably March 31. An exhibition meet with Newton has been arranged, but no date set as yet.

## BERTIN TO LECTURE

French Naval Constructor Will Give Course Here Soon

Mr. E. L. Bertin, Chief Constructor, retired, of the French navy, is to give a special course of lectures for the naval architects early in April. M. Bertin is a member of several of the prominent professional societies of France, and he is well known for his work in this field. He is coming over here on a flying visit specially to give these lectures, and he will return to France on their conclusion. The details of the lectures have not been decided upon, as yet, but full particulars will be given out a week or two before the course begins.

## MEETING OF THE A. A.

At the regular meeting of the M. I. T. A. A. yesterday afternoon, a committee reported on the proposed season tickets to be issued for next year. The report was approved and submitted to the advisory Council on Athletics for their approval. The idea is that the owner of a season ticket will be admitted to all the track meets, including Field Day, with the exception of the N. E. I. A. A. games, which do not come under the jurisdiction of the Institute, to all the home basket ball, hockey, gym and fencing meets. The A. A. will for their part guarantee at least one dual meet during the year, five basket ball games, and three fencing meets, besides the Fall and Spring meets.

These tickets will be printed and circulated before the end of the year in order to dispose of some during alumni week and as many as possible to the undergraduates before they leave. A large quantity of cinders have been put on the track and arrangements are under way for regular rolling of the track.

The executive committee of the corporation has made an appropriation for installing water pipes at the Field so that the trackway be watered regularly.

## INVESTIGATION OF OTHER RESTAURANTS

Student Government at Dartmouth and Harvard Has Failed

### NEED EXPERT TRAINING

Filene Co-operative Society Make Success of Low Priced Dining Room

Appalled by the disastrous state of affairs in the Union, as outlined in the financial statement recently issued by Dursar Rand, the Tech has been investigating the management of the dining rooms. The results to date are as follows:

#### Dartmouth and Harvard Fail.

At Dartmouth the dining room was originally run by students. The experiment was a failure, and student management had to be given up. The present manager says that he knows of no college dining room successfully run by students.

Within a few weeks the Harvard dining halls, because of financial difficulties and general dissatisfaction, were withdrawn from the management of the undergraduates.

From Yale comes the report that the dining room there is run successfully by students, with a small profit. A professional manager is employed, but no information was received as to his powers and privileges.

#### Filene's Store Big Success.

The restaurant in Filene's Sons Co. Department Store, recommended by the manager of the Dartmouth Dining Hall as being as near the ideal cooperation dining room as he knew of, has been particularly investigated.

The eight hundred or more employees of the company have organized as the "Filene Co-operative Association." The dining room and adjoining social rooms, loaned them by the company, are maintained by them for their own benefit. Like the Union, there is no charge for light, heat or rent.

#### Success Due to Co-operation.

A Club House Committee of five members is in charge of the dining room, and makes monthly reports to a council that is elected by the Association. All questions of general policy in regard to the dining room are passed upon and decided by the committee. Technically the committee has full charge of the dining room, even in details; but for the last two years these powers have not been exercised. A woman, grown up in the restaurant business, has been put in charge as manager. She hires the help, does the buying, and fixes the prices, whether they are the same from day to day, or fluctuate with the market. The committee has left her to do this because it considers that as she has had more experience in that line, she will make a success where they would make a failure. Two years ago the reverse was the policy, and as a result the dining room was badly in debt, as is the Union now. In the last two years, under the new policy, and the new manager, not only has the debt been paid off, and the running expenses of the dining room and club rooms met, but a sinking fund of \$1000 is nearing completion. Once the fund is actually completed, the committee has determined to make a reduction in prices, so as to make just enough profit to maintain the various club rooms. Twice during the last two years, while making up the debt and the sinking fund, have the prices been lowered.

#### Low Prices—Good Food.

Meanwhile out of 800, about 80 per cent. of the employees are eating their lunches there—an enormous increase over the attendance of two years ago. Prices are lower than elsewhere in the city, the quality is just as good, and the quantity for the price is astonishing. It is the policy of the committee (Continued on page 3.)

## MR. W. R. C. BOYD ON STEAM TURBINES

Technology Graduate Tells of Turbine Troubles and Causes

### E. E. SOCIETY MEETING

Large Number of Mechanicals and Civils Were Present on Invitation

The Electrical Engineering Society met last night at the Union, members of the Mechanical and Civil Engineering Societies also being present. Mr. F. R. C. Boyd, '01, turbine expert and designer for the General Electric Company, at West Lynn, spoke on "Steam Turbine Troubles."

He mentioned a number of troubles arising from mechanical and electrical imperfections, and suggested remedies for each. Vibration may be due to faulty bearings, to rubbing of rotating parts, to warping of parts, to lack of balance, or alignment, to wrong field connection, or other imperfections. As Mr. Boyd pointed out, the main difficulty lies in finding the cause of fault, and this is done by elimination tests. After the talk Mr. Boyd told of several odd experiences met upon the road.

President John Mills, 1909, suggested a farewell dinner to Professor Clifford, to be held at the American House on May 6. It was voted that the dinner be served at \$1.50 per plate.

Section 8 of the By-Laws was also amended to provide for an Election Committee of five to be elected at the March meeting. The following were elected: John Mills, 1909, F. J. Lange, 1909, R. S. Dodge, 1910, L. T. Hemmenway, 1910, and P. M. Bramhall, 1910.

Mr. Fowler, representing "Power," spoke for a few minutes upon the articles to appear in that paper, and offered the journal to Tech students at the special subscription price of \$1.50.

## RUSSELL WRITES BOOK

Prof. G. E. Russell is preparing manuscript for a text-book on Hydraulics to appear some time early in the summer. Its basis is a set of lithograph notes which have been used in Institute courses during the last two years. The purpose of the author is to present to the teaching profession a book primarily written as a text-book, but so filled with references as to be of value to the practicing engineer. The subject matter includes a discussion of hydrostatics and all the more important parts of hydrodynamics. No attempt will be made to introduce abbreviated, and consequently incomplete, treatment of hydraulic motor and machinery as the author believes that such matter needs to be handled in a separate volume.

## CATHOLIC CLUBS MEET

The Catholic Club met yesterday evening at eight o'clock, in the Union. Father Patterson, Vicar-General of the Boston diocese, gave a splendid talk on "Co-operation," and plans were discussed for a banquet to be held late this school year. The next meeting of the Club will be held March 30.

## CALENDAR

WEDNESDAY, MAR. 17.

1.15 P. M. Tech Board in 30 C.

THURSDAY, MAR. 18.

4.15 P. M. Cosmic Physics.

1.00 P. M. T. P. A. Meeting, Room A.

FRIDAY, MAR. 19.

8.30 P. M. Show Posters out.