

THE TECH

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PRICE ONE CENT

DR. WHITNEY GIVES LECTURE ON ELECTRIC FURNACE

The Last Of A Series Of An Interesting Course Of Lectures About Chemistry

To bring out the idea that science and the arts are making steady progress, are never standing still or going backward, Dr. Whitney discussed yesterday the development of the electric furnace. The electric furnace, he pointed out, is a practical application of very elementary principles. At first there were more scoffers at the electric furnace than there were investigators of it, but despite the pessimism of many scientists, the furnace is today a practical success. In referring to such scoffing Dr. Whitney said, "If you have an idea do not be scared by the pessimism of those who know more than you do. A scheme or an idea is to progress what the headlight is to an automobile, while pessimism may be compared to the brake. A new idea does not at first need the brake of pessimism; facts will serve this purpose sufficiently well."

Although electric heating is between ten to a hundred times more expensive than heating by coal, it may nevertheless be used to good advantage under certain circumstances. If we want an extremely high temperature, as high as 3500 degrees C, it is necessary to use electrical means; if we want very rapid heating or if we wish to heat substances which shall not come in contact with products of combustion, the electrical method is the best; again, if we wish to save wear on apparatus which would be rapidly destroyed by heating externally, electricity is the best agent. In all such cases then, electric heating can be employed economically despite its high cost. Furthermore, by electric heating we can not only get a high temperature, but we can get the heat applied just where it is wanted.

After pointing out these advantages of electrical heating, Dr. Whitney went on to describe the different types of electric furnaces which have been and are being employed. The simplest electric furnace is one of the resistance type. To use this we must have a material which will stand the high temperature, will not oxidize, and will have a high resistance. Platinum is too expensive for ordinary purposes, and therefore the different kinds of high resistance alloys have been developed. These are alloys of steel with chromium tungsten, tantalum, or titanium. Such alloys are used almost exclusively by the General Electric Co. for making electric flat-irons and heaters.

The tube furnace, which was described next, makes it possible to attain a temperature of 3500 degrees C. and to carry on reactions at this high temperature. To study certain reactions a vacuum carbon tube furnace was devised by a Tech graduate in the employ of the

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CROSS COUNTRY RUN

There is to be a cross-country run this afternoon. The men will start from the Needham station and will run a course of about six miles, ending at the station again. It is expected that a squad of about fifty men will go and they will be led by Coach Kanaly. The men are getting into good shape now and the outdoor work is putting them in good trim for the intercollegiate in May and for the other dual meets Tech may have with Wesleyan and other New England colleges. The last hare and hounds run was a great success, bringing out a record crowd.

TECH SHOW POSTER APPEARS MONDAY

Tropical Scene Illustrated In Brilliant Green And Yellow



Tech Show poster 1910 will be on sale on Monday morning. The proofs have already been approved and the posters are now being printed.

This year's poster is striking as well as being artistic, and in the opinion of all those who have seen the proofs, it is the best poster Tech Show has ever had. This year there were more good posters submitted than ever before, and it was no easy task deciding just what one should be the 1910 Poster.

Charles Cameron Clark, who drew the poster, is a Course IV. man.

The poster is done in three colors, black, green and dark yellow, on a white background. The central figure is the queen, a very charming damsel who is gaily dancing on the back of a huge green turtle, while a small monkey peeps up at her face from the lower corner with perfect evident joy and amusement depicted in his expression. Behind the queen there is a row of dancing girls, silhouetted against the background of palm trees, which contrast very effectively with the principal figure, the queen. A careful and well-done medallion of dancing figures forms an excellent background for the queen's head. At the top of the poster are the words, "Tech Show" in black letters, and just below the turtle the clever lettering, "The Queen of the Cannibal Isles." The background is dark yellow, which contrasts strikingly with the green, black and white.

The price of this year's poster will be the same as last year, namely 25 small bits of copper. The poster will be on sale at the "Cage" and Show Office, Room "B" Union. Be sure and send her one—she will appreciate it.

COURSE VII ISSUE

The Course VII. issue of The Tech will be published early next week. Watch The Tech, as it will be announced just when it will arrive.

LARGE ARCHITECTURAL EXHIBITION TO BE HELD

All Of The Larger Colleges Will Be Well Represented

On Saturday, April 2, the second annual exhibition of the Boston Architectural Club will be held at the club house. This is a most important exhibition and practically all of the larger colleges having architectural courses will be represented. The colleges which will have exhibits are Columbia, Harvard, Cornell, Pennsylvania, Carnegie Institute and the Mass. Institute of Technology.

Last year the exhibition was also held here in Boston at the Club, but it is the intention of those in charge of the affair that this exhibition shall be eventually a traveling one and all of the various colleges that are represented shall at some time have the exhibition held at their college. This is a most excellent idea, as it gives these colleges the advantages of having the work from the other colleges to review, and see just what other college men are doing.

THE ARENA

It is about time that some of the Track men visited Tech Field. Very few men have been out for practice in spite of the greatly improved conditions at the Field this spring. As usual the first year men are most abundant, and they promise revenge for that recent indoor track defeat.

Incidentally that 1912-1913 meet on April 18 ought to be well worth going to see. The Sophs have more 'varsity men, but the Freshies are a capable bunch, and are practicing with a zest that looks bad for '12.

The "weight" men are practicing with shot, hammer, and discus in the Field near Lowell, afternoons.

1913 has a likely looking bunch out for base-ball. Thompson who did so well in the quarter mile indoors, seems to have catcher's position coming his way. He will be a "Ty Cobb" on the bases.

When will we see that promised crew tearing the Charles river into bits of foam?

Sampson the 1913 half miler, has injured an ankle and will not be able to run for a few weeks.

George Cummings is out for the low hurdles again and looks faster than ever.

Chamberlin, who secured in the New England Intercollegiate shot-put for us last year, is working regularly and shows up well for the early season.

Watkins hasn't practiced yet,—but watch him when he does settle down to work.

More fellows should follow the hare and hounds runs on Saturdays. They furnish lots of sport, and are easy enough for the most modest runners.

Next year's basket-ball should be top-notch. Practically all of this year's team will be back and with their experience together they will give some creditable performances.

THE APPLICATION BLANKS OF THE TECH SHOW OUT

System Same As Last Year--- Complete Direction Given Below

By Monday evening all of the students, freshmen, sophomores, juniors and Seniors, will be deep in the so-called mysterious intricacies of filling out blank applications for seats for the performances of Tech Show 1910. Ever since the application blanks were first started there have always been a number of men who seemed to think that every space on the application was to be covered with writing. This year the management has endeavored to head off any industrious penman by labelling the cards, "Do not write in the space below," etc.

Each man will receive an application blank, a list of instructions, and a postal card. He should first read the instructions and find under what classification, A, B, C, etc., he comes; what price tickets he wants; how many, and for what day. The first line of the blank is labelled "Name," the second first two are self-explanatory; the third calls for A, B, or C, as above. The first column to the left is headed "Prices." The next three, under "Applied for," are for the "Day, Number and Amount." These should be filled out for the date for which the tickets are wanted, the number wanted, and the total cost: thus, 15 or 18, 3, \$6.00; 15 or 18, 2, \$1.00, etc.

In the left-hand corner, boxed in, will be found, "Raise, Lower, Change Day, Do Not Change Day." If all the seats a man applies for on one day are gone, and he wants the same price seats on this other day, he should then cross out all but "Change Day." If he wants the same day but wants cheaper seats if he cannot get those applied for, he should cross out all but "Do Not Change Day," and "Lower." At the lower right-hand corner is found "Scores ordered," and the number ordered should appear after this. No other part of the card is to be filled out by students.

These blanks are on no account to be used for application for out-of-town seats. They are strictly for Boston performances. All out of town seats should be applied for on a separate postal, not the one received with the application. Nothing but the applicant's name and address should be put on the postal received with the application, and it should be turned in with the application blank to the Cage or the Show Office.

When the assignment has been made the postal will be returned to the applicant stating seats assigned. When he calls for his seats(he should not fail to present his postal card in order to facilitate the filling of his order.

The things to be remembered are: The application blanks are for Boston only, all out-of-town applications to be filed separately, and postal should be presented when tickets are called for.

Any man not receiving an application or a notice of black-list should at once communicate with the management.

CALENDAR.

Wednesday, March 30.

- 3.00—1912 Baseball practice, Tech Field.
- 4.00—Crew practice.
- 6.00 P. M.—T. C. A. Dinner, Union.
- Prof. Talbot's dinner to Chemists, Union.
- 8.00—Society of Arts. "Gyroscopes."
- 8.15—Catholic Club, Union.