THE TECH

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DR. WHITNEY SPEAKS ON "THE CHEMIST'S FIELD"

Need Of More Research Men Is Keynote Of His Talk To Chemists

Dr. W. R. Whitney in speaking on the subject of "The Chemist's Field," made several statements which, coming from so high an authority, have the greatest significance for Tech men. The most important point in Dr. Whitney's lecture was that continued study and research after graduation was of the very greatest benefit to any man who was at all inclined toward research work. Such study, if undertaken unselfishly and without a view towards financial gain, always resulted in achievements which were far better and far above the dollars and cents standard of success. He further said that there were too few men at Tech who realized this, and far too many men who took no more interest in their work than to get through with it and into a $75 per month position. "Teaching such men," said Dr. Whitney, "is casting pearls before swine."

The growth of chemical industries, and of the number of chemists was illustrated by charts showing this increase year by year. "No man has a wider field of usefulness in Aemerica today than the chemist," was the conclusion drawn from these charts. To illustrate the many fields in which chemistry was indispensable, Dr. Whitney described the progress made in biological chemistry, and especially in the chemistry of immunity. But in order that chemistry may continue its usefulness in the future the chemist must be more than an analyst or a chemical engineer; he must possess that inquisitiveness of nature and that unselfish point of view which will lead him to investigate for the sake of knowing, that is, for the love of the work.

Dr. Whitney declared that he was fighting against the idea that Technology was a trade-school which merely fitted men to make a living. Such men he compared to the professionals in athletics, while the men who have had instilled into them a love for knowledge, are like the trained amateurs in sport.

Next Dr. Whitney gave his view of the difference between a discovery and aninvention. The discovery always comes from a trained man eager for knowledge, while the invention is an improvement of some sort superimposed upon the fundamental discovery. The discovery never results either from previous experience or from previous knowledge, but only from the type of mind possessed by the discoverer. He showed by a long list of examples that nearly all the greatest discoveries came from professors; trained men working for no financial gain, but led on by their inquisitiveness.

In closing his scholarly address Dr. Whitney stated that America has plenty of analysts, and plenty of the various kinds of chemists, but if progress such as Germany and France are making, is to be made here also, America must have more men willing to engage in research.

Tomorrow at 4.15 Dr. Whitney will deliver his second of the series of three lectures. The subject will be "The Development of the Incandescent Lamp."

Yake and Princeton have been added to the Dartmouth tennis schedule this year. All of Dartmouth's last year's team are available this spring. The schedule has just been given out, with the exception of matches expected to be arranged with Cornell and the Massachusetts Institute of Technology.

PENN. CLUB TO HEAR ARCTIC EXPLORER

Dr. Sharp Of Brookline To Tell Penn. Club Of Trip With Peary

The Pennsylvania Club Dinner, to be held Thursday, Mach 24, at the Union, promises to be an exceptional treat, in regard to the entertainment as well as the victuals. Dr. Sharp of Brookline is to address the assembly on "A Trip to the North with Peary in 1891."

Dr. Sharp is a man of national reputation. He was formerly director of the Academy of Natural Sciences in Philadelphia. In 1891 we was a member of the Peary Arctic Expedition, in which both Cook and Peary participated, and upon this novel experience he will base his talk before the Pennsylvania Club. His lecture will be illustrated with stereopticon views which will convey vivid ideas of Arctic life to the audience.

It is especially urged by the president that all the members of the club be present to hear this rare entertainment. The president has been trying to arrange with D. Sharp for over a month and it is expected that everyone will seize the opportunity to come and hear the splendid programme he has arranged. Non-members are especially invited to attend after the dinner, about 7.30. Dinner will be served at 6.30.

STORAGE BATTERY

Proves Efficient In Test Given Edison's New Car

The new Edison storage battery street car made its way into the horse barns of the Twenty-eighth and Twenty-ninth Street Railroad last night as a regular fare collecting vehicle of the streets after a day's service. Ralph Beach of the Edison West Orange plant said: "The car can get in a bigger day's run than can be made on streets on which it runs. The difference in length of run from my figures come from the fact that it takes about five times as much current to start a car as to run it after it has taken on its speed. At the rate of speed practicable in these congested streets a car is always in a state of starting or stopping. It is always using a maximum of current. I can add to my cells and add to the car's possibilities, but that makes additional weight, and I don't want to do it if it is not absolutely necessary. The tracks over which this test was made were very dirty, for the old horse cars were not heavy enough to cut through the dirt and produce a clean rail. And then there were many stretches of bad track, and the run was through the most congested part of the city, so that I feel very proud of its eight hours' showing."

The one thing on which the engineers refused to be convinced on the trial run of the experimental car was the item of cost. They said that an ordinary trolley car costs five cents per mile for current, and that if this car made its run under twice that it would be a wonder.

When the figures were compiled at the end of the run it was claimed that the cost per mile for the sixty-five miles of the day's work was 6.4 mills, which was only about half of what Mr. Beach expected. He told the engineers who were inclined to doubt his assertion that he had run the car for eight mills per hour, and that it could not possibly run up to over two cents on the streets of this city.

The car ran throughout the day without a single hitch, making smooth stops and easy starts. It completed its 800th mile at the end of its day's run, counting all the trips it has made since it was built. The only wear noticeable was on the brake shoes, which had become so worn that they had to be replaced.

The body of this car is 18 feet long between posts, with 4 feet vestibule platforms. The extreme width is 7 feet inches, and the seating capacity of the car is 26. The under frame of the car is made up of two inch by 6 inch as longitudinal sills and nine cross-sills of the same size and material. A steel tie-rod runs by the side of each cross-sill and passes through the longitundinal sills, thus firmly binding the under structure. Two eccentric arches, each made of a sheet of three-ply veneer covered with canvas, form the roof. The battery equipment of the car consists of 200 cells of Edison A4 type for driving, and ten cells of the same type for lighting. These cells are separately connected in working, but are connected in series when being charged, so that any variations in voltage owing to the operation of the car will not affect the lamps. The truck is of the standard-gauge, four-wheel type, with 6 feet 6 inch wheel base. The frame of the truck is of steel, welded at all joints. The driving equipment consists of two 5-h. p., 110-voltage Northern motors, which, besides possessing fairly high speed, are much lighter in construction than standard motors of the same output. The wheels are driven from these motors by means of a chain drive. Dur-

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PLANS FOR CATHOLIC CLUB DANCE DECIDED

Annual Dance Of Club To Be Held April 4th In Copley Hall

On the evening of April 4, the Catholic Club will hold its annual dance in Copley Hall. All the arrangements are practically complete and everything points toward one of the most enjoyable affairs ever given under the auspices of the club.

The committee in charge have been working steadily during the past six weeks and elaborate plans have been made for the entertainment of the many invited guests. At the recent meeting the enthusiasm ran very high and the members will undoubtedly be in attendance without exception. The committee are most anxious to make the dance essentially a Technology affair and it is hoped that a good many of the students will take advantage of this opportunity.

The matrons of the evening will be Mrs. Richard C. Maclaurin, wife of President Maclaurin of the Institute, Mrs. M. M. Cunniff, Mrs. John D. Martin and Mrs. Stephen O'Meara. Furthermore many ladies active in the social life of Boston have consented to act as patronesses.

All the men desirous of attending and who have not as yet procured invitations can obtain them from the members of the committee at the Union during any noon hour. A. F. Leary 1911, P. Cyr 1910, J. M. Herlihy 1911, C. H. Harrington 1911 and T. Killian 1911.

The next meeting of the club will be held on Wednesday, March 30, 1910 A talk will be given on "The Spanish Inquisition." As this is the last meeting before the big dance all of the members are especially urged to be present.

CREW HARD AT WORK ON GYM EXERCISES

A Fine Spirit Is Shown By The Large Number Of Candidates

There has been an average of twenty to twenty-five men report daily for the second wek of crew practice and a great spirit is shown although the work assigned is pretty hard.

The daily practice comprises the fol-

Chest weights (24 times each), raising arms horizontally and overhead with the arms front.

Pull to shoulders, 48 times.

Between the legs to overhead position using all weights, 24 times.

Stall Bars.

18 times, feet in the bars, sitting on bench, lean backward to the boor.

6 times, hanging by hands, raise feet horizontal position.

Iron Dumb Bells.

12 times, raise from floor to overhead position with stiff knees and arms.

24 times, raise from floor to overhead bending knees and arms.

Running.

10 laps, or run from Gym to Mass. Ave. and back, 1-2 mile.

Wrist Machine.

2 times each, turning barrel toward you beginning at the small end.

Coxswain Exercises.

Run half mile and use light chest weights and other light exercises.

Men must report at least three times a week, 4 to 6 times if possible.

MUSICAL CLUB CONCERT

Program To Be Rendered To Hardware Merchants' Ass'n

The services of the Technology musical clubs have been secured by the New England Hardware Dealers' Association to furnish music at their banquet in Revere Hall tognight.

The concert begins at 6 P. M., and between routine speeches and courses the clubs will perform.

The selections will be substantially the same, with the exception of the inexpressible banjo club, which, through the efforts of its leader, has several new and impressive pieces to offer—in case of repeated encores only.

The Glee has a new song of merit entitled "De Coppah Moon," which will surely be enjoyed.

The Banjo Club has been unfortunate in loosing H. Lockett '10 and D. Wyman '12, who have been too busy to continue with musical pursuits. However, H. Sharp '09 has accepted the leadership and Mr. Wheeler takes Wyman's place.

Manager W. W. Warner has had his say and the spirit of increased activity promises to keep the clubs to the highest standard ever attained at Tech in the musical clubs.

CALENDAR

Thursday, March 24.

4.00—Cross Country Practice at Field.

Friday, March 25.

4.00—Crew Practice.
4.15—Gym. Team Practice.
4.30—Union Entertainment.

Saturday, March 26.

2.14—Hare and Hounds at North Station for Wakefield.
2.30—Combined Show Rehearsal.
3.00—Crew Practice.