

# THE TECH

## DAILY

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### "CELLULOSE" SUBJECT OF CHEMISTRY ADDRESS

#### H. S. Marks Entertains Chemical Society With Interest- ing Talk

At the meeting of the chemical society in the small dining room and study room of the Union this evening, Mr. H. S. Mark '09 gave a very interesting talk on cellulose and cellulose products. Mr. Mark is with the A. D. Little Co. of Boston, chemists.

The meeting was called to order by the chairman at 8.10. After the reading of the minutes of the preceding meeting, the only business was to inform the members that it was desirable to amend the constitution so that sophomores would be allowed to vote. The chairman then introduced Mr. Mark.

Mr. Mark began his talk with a few statements regarding the quality of cellulose in the world. In part he said that if you stopped a man on the street and asked him what a metal was he could probably tell you, but on the other hand, if you asked him what cellulose was he could only stare blankly and would not answer, whereas he had a great many times more cellulose about him than metal. In fact, a great part of his clothes were cellulose and his bank roll, if he had one. For numbers he stated that there was annually 10,000,000 tons of cellulose produced.

Very little about cellulose is known, however. It is the cell structure of all plant life. It is colloidal in form, and is a number of molecules bound together. Its specific gravity varies between 1.5 and 1.55. It will absorb water and will also form chemical combinations with it.

Water form cellulose hydrates. These hydrates have little reducing power. It is used commercially in carbonizing wools, with the aid of acids. It is also used in making artificial silks and parchments, as other cellulose products are.

Oxidising agents produce oxy-cellulose. This is a weaker compound than the hydrates, but has a greater reducing action.

Organic acids do not unite with cellulose. Other acids have a much stronger action. These acids, however, act in many different ways. No alkalies except caustic soda have any effect on this interesting substance. A strong solution of hot caustic soda has a mercerizing action on it.

Different solutions of cellulose have attained great commercial value. One of them is the making of electric lamp filaments, which is done by squirting streams of cellulose into zinc-chloride.

Some of these solutions and their nature and uses are as follows: Cupro-ammonium solutions are used externally in making artificial silks.

Viscos is a solution made by treating cellulose with a strong caustic soda solution and putting it through other chemical processes. Some of its uses are in making silks and coating papers.

Cellulose acts as an alcohol, but very little is known of it as such.

The most important products of cellulose are its nitrates and acetates.

The nitrates are all very inflammable, but the acetates do not burn so readily. The differences in the nitrates are the amounts of nitrogen in them.

Celluloid has very little nitrogen in it. Higher nitrates are used in making metal lacquers, artificial silks and

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### BIG JOINT CONCERT OF TECH AND WESLEYAN

#### Musical Clubs To Give Fine Program--Management Plans For Large Crowd

On Friday, Nov. 26, Paul Revere Hall, Mechanics Building, will be the scene of the best joint musical club concert ever given, in which Tech has had a prominent position. Technology and Wesleyan University plan on making this affair the greatest of the season in its line. Both clubs are first-class this year, and since the number of selections by each will be limited, a very select program will be obtained.

After the concert, a reception will be held, and then dancing will reign till midnight. Paul Revere Hall is the finest hall for dancing in this vicinity.

The undertaking is quite extensive, and no expense has been spared by the management to have everything up to the highest standard.

Tickets are going rapidly among the alumni and students of both colleges. It is the desire of the manager, W. W. Warner 1911, that all those who have ordered seats obtain them at once, for he is not sure that they will last beyond Thursday. Seats will be exchanged at the Union between twelve and two daily.

### INDOOR TRACK WORK

#### Practice To Start Dec. 13 Relay Trials Jan. 22

On Monday, Dec. 13th, Coach Kanaly will call out candidates for the indoor track team. Although the date is early at the present time it looks as though we should have a fairly good team this year. There are forty-five freshmen taking track work this year in place of gym, and from this the team ought to get some good material. The sophomores have some fine track men in J. Grant, S. E. Reed and three other sprinters of 1912. For long distances and middle distances this class has H. Benson, H. G. Watkins, A. Cartwright and R. M. Ferry. For weight men they have D. Benbow and J. L. Gray. In the other classes there are some very good men. P. D. White, W. O. Salisbury of 1911, H. S. Cummings, and K. Ferrstrom of 1910.

The dates that are set for the indoor events are not as yet positively announced, but probably the indoor meet will be on Friday evening, January 14. The preliminary trials for the 390 yard relay team will come on Saturday, January 22, with the finals on the following Saturday.

The men picked for the relay team will report for duty on February 7; the team will run in the B. A. A. meet on February 12.

There will be quite a competition for places on the team this year. W. C. Salisbury 1911 of last year's team is still in the field, R. H. Gould 1911, P. D. White 1911, S. E. Reed 1912, and M. A. Cettinger 1912 are promising candidates.

Coach Kanaly expects every candidate for the 'varsity team in the spring to come out and work with the indoor team this year.

A Russian undergraduate at the University of Missouri speaks six languages, all of which he learned in three months. He came from Wloien a month ago.



### HANDICAP CROSS-COUNTRY RACES SATURDAY

#### Three New Cups Awarded-- Lorenz, Ex-Record Holder, Is To Run

On next Saturday will be held the annual handicap cross-country race. This race is held every year shortly after the I. C. A. A. A. race. The main purpose is to stimulate cross-country work at the institute and to bring out new material. The handicaps are time handicaps, every man running over the full distance, which in this case is eight miles. The four men making the best time are awarded the insignia etc. Most every year some new men win these letters, last year two freshmen, H. Benson and E. Ferry, received them.

Beginning this year a new interest should be shown on account of the three beautiful cups presented by E. H. Lorenz 1905, R. Ellis 1909, F. H. Hunter 1902, and A. R. Hunter 1908, to be given, one to the man making best time and one each to the two men finishing first and second.

Mr. Hunter has taken great interest in Tech cross-country work. He has shown some men over the course for the last two Sundays. These men took the precaution to lay a heavy trail, so all the runners can easily follow the course.

The race starts near Highland Station in West Roxbury, and goes over hills, down dales, through woods, and also gives some road work. The course is admirably suited for the race, and much pleasure can be derived by the contestants.

As many of the cross-country team have broken training and will not run, new men will have a chance to do some work, and should come out. An entry book is hanging in the Union at the entrance to the cage, and all entries should be in by 5 P. M. Friday, so that Coach Kanaly can make out the handicaps.

It will be interesting to note that Mr. Lorenz is to run with the fellows. He will not effect their times or places, but being holder of the record up to last year, when it was broken by H. Howland 1909, he will probably go after it again.

### 1911 CLASS DINNER COMMITTEE APPOINTED

#### Dinner Set For Friday, Dec 10 --Prominent Speakers To Be Present

President S. B. Copeland of the junior class has appointed C. F. Hobson, S. P. Kimball, and L. G. Fitzherbert to constitute the dinner committee. The dinner is to be held at the Union on Friday, December 10 at 6.30 sharp.

As has been the custom, the president of the class will act as toast-master. The speakers of the evening will be several prominent members of the faculty. Of especial interest to all however, will be the announcement of the result of the Junior Prom. committee.

The nominations will be due between Monday, Nov. 29th and Thursday, Dec. 22d. Ballots will probably be mailed to the members of the class on Monday, Dec. 6, and the polls close Thursday, Dec. 9th at 4 P. M. All those who wish to have their vote count, must have all dues, including those for 1909-10 paid at that time. The treasurer E. A. Nash may be found in the Union every day between one and two. The following collectors have been appointed for the different courses:

Course I.—W. True.  
Course II.—K. Barr.  
Course IV.—G. S. Watson.  
Course VI.—K. Greenleaf  
Course VIII-XIV.—I. W. Wilson.  
Course X.—C. F. Hobson.

Dues may be inclosed with the ballot in the coming election.

Mr. and Mrs. Arba F. Harrington of Newton, Mass., have announced the engagement of their daughter, Nellie Frances to Mr. William Benjamin Jenkins, P.A. '05, M. I. T. '09. Mr. Jenkins is assistant manager of the Jenkins Steamship Co. of Cleveland, Ohio.

### CALENDAR.

Wednesday, November 24.  
2:00—Convocation H. H.  
5:00—Aero Club meeting in Union.  
Friday, November 26.  
4:00—Basket Ball practice.  
8:00—Joint Concert and Dance at Mechanics Building.  
Saturday, November 27.  
2:22—Train leaves Back Bay station for Handicap Cross-Country Run.

# Convocation Today at 2 P. M.