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VOL. XXX. NO. 55

BOSTON, MASS., FRIDAY, DECEMBER 9, 1910

PRICE TWO CENTS

# COURSE XI SENIORS VISIT WORCESTER

Sewage Disposal Plant at That Place Investigated By Sanitories.

TWO METHODS SHOWN.

Both Sand Filtration and Chemical Precipitation Used to Remove Sludge.

Yesterday sixteen Seniors of Course XI, accompanied by Mr. Gilbert of the department, went to Worcester to see the sewage disposal plant at that place. The trip furnished a good example of the way in which a Tech man makes use of his time, as many of the fellows carried books along and studied on the train. The reason, it might be added, was that there is a final examination today, in which the class is much interested.

The plant at Worcester is in charge of Mr. Fales, and he conducted the tour of inspection in person. The first point visited was the grit cham-ber, through which all the sewage of the city in question was flowing, the rate of flow at the time being about twenty million gallons a day. effluent here was black, due to the great amount of tannate of iron in so-lution. This substance is a part of the waste from the wire works and gives at times not black, but pink and purple solutions.

After the sewage leaves the grit chamber it is treated in one of two ways, the first being by direct sand filtration; and the second by chemical precipitation with milk of lime. The second method was the one first seen. At the start Mr. Fales did in a beaker the same experiment that is carried on in a larger scale in the set-tling basins, and showed how nicely the sludge and color is removed by the process used. One of the basins was being cleaned, so it was suggested that the men see what happened to the sludge. The residue was first carried by gravity to a well, from which it was pumped by a Shone ejector to a higher tank, where it is screened preparatory to being pressed into blocks and sent to the dumping

grounds.

After this process had been investigated the sand filtration beds and the sprinkling filters were seen, the action of the various types of the latter devices being well explained by the guide. The resulting effluent here was rather dark in color, but otherwise was not at all offensive.

The next place visited was the laboratory, where both daily and composite samples are being constantly tested, the methods used being essentially those employed in the laborator ies at the Institute.

Mr. Fales is an ideal open-air lecturer, and he made the excursion result in much good for the class. He also agreed to send various samples from the station to the laboratories here, and these will be tested Tuesday

plant will be visited.

# T. C. A. IN CHARGE OF AMUSEMENT TONIGHT

Dinner Will Be Held at 6.30-Talks Will Be On Social Service.

ment Committee in providing the (Continued on page 3)

## ELECTRICAL ENGINEERS AMONG THE ACTIVES

Prominent Men Engaged to Address Society in 1911.

SOCIETY PIN DISCUSSED.

Every Course VI Senior Now a Member-Boast of Society.

The Electrical Engineering Society is in such thriving condition that it now boasts of the enrollment of every Senior in Course VI as a member of the society. The membership has recently been increased by twenty-five.

The Excursion Committee reports that the trip to various factories and electrical plants have been well at tended, and as a whole very interesting and instructive.

The Program Committee has shown much hard and careful work, engaging, among others to address the society, three past presidents of the ciety, three past presidents of the American Institute of Electrical Engineers—Elihu Thompson, F. J. Sprague and C. E. Stott. Mr. Stott was to speak January 3, 1911, but owing to his illness his talk has been indefinitely postponed. A provisional program follows:

January 3-Undecided. February 1—Mr. W. E. Fish of the General Electric Company. February 4—Mr. Valentine of the

New England Telephone and Tele-

graph Company.
March 10—Chief Engineer Murray of the N. Y., N. H. and H. Railroad, on "The Hoosick Tunnel."

March 20-Messrs. Philip and Goodnough of Stone & Webster.

March (last week)-Mr. Paul Wind-

April-Mr. F. J. Sprague, consulting

engineer.
May 9 or 11—Mr. Elihu Thompson. The Electrical Engineering Society is at present investigating the matter of a society pin. For the past few years the society has had a pin of unique and significant design, but few of the members seem to have been aware of its existence. It is hoped that every member of the society will soon be wearing the society's emblem. Suggestions from members in regard to the pin are welcomed by the committee

Shingles have been distributed to those members who applied for them.

## THIRD CONVOCATION IN HUNT. HALL TODAY

Mr. C. R. Towson Will Speak On "The Immigrant Problem."

At the General Convocation that will be held in Huntington Hall at 2 o'clock today, Mr. Charles R. Towson, secretary of the industrial department of the International Committee Next Thursday the class is to make of the Young Men's Christian Association, who is in charge of industrial both the water works and the sewage and immigration work throughout the country, is well qualified to speak on the subject he has chosen, "The Immigrant Problem." It is particularly It is particularly fortunate that this will be the theme of Mr. Towson's talk, for from his intimate experience with thousands of immigrants every day he will present phases of immigration and make some special reference to the movement that is being promoted for enlisting engineering students in practical forms of service for the betterment Tonight the Technology Christian and Americanization of the immi-Association unites with the Entertain-ment Committee in providing the fore be of especial value to Institute students.

#### INVESTIGATION OF USE OF TOBACCO

Dr. Meylan of Columbia Makes Interesting Tests On Over Two Hundred Men.

ARE THE RESULTS ALWAYS HARMFUL?

Representative Figures Tend to Show That Effects Are Not Necessarily Injurious.

Elbert Hubbard has recently published a short statement in his magazine to the effect that the men of the Institute lead those of other colleges in the use of tobacco. Just where Mr. Hibbard gets the statistics to prove this we do not know, but in this connection it may be of interest to publish the report of Dr. George J. Meylan of Columbia, who has recently investigated the physical and mental conditions of students of that college who use tobacco, and also of those who do not. Dr. Meylan says he has no desire to defend tobacco smoking, the motive for his investi-gations being simply to ascertain the facts concerning college men and the effect of tobacco on them. He states:

"All scientists agree that the use of tobacco in moderation by healthy, mature men produce no beneficial or injurious effects that can be measured. There is also scientific evidence that the use of tobacco by adolescents is injurious." He then gives the results of personal investigations. He examined 223 students, 115 of whom smoked. The age at which they acquired the habit varied from one at seven years to eight at sixteen years, thirty at seventeen, sixteen at nineteen and one at twenty-one.

The average physical measurements of 145 students form the basis of a table of their development over a period of two years. Sixty-six students who smoked gained about eight pounds in weight, against a gain of six pounds by seventy-seven non-smokers. The same students made a net increase of 1.2 centimeters in height for the smokers, and 1.1 for the non-smokers. In lung capacity, however, the non-smokers surpassed, gaining .20 against .08.

In scholarship the non-smokers had a distinct advantage. The smokers averaged eighty per cent. in their studies at entrance, sixty-two per cent. during the first two years and seven per cent. of failures. The nonsmokers got ninety-one per cent in their entrance examinations and sixty-nine per cent in the first two years of college, while only four per cent, were failures. In this connection Dr. Meylan thinks there is a distinct relation between smoking and scholarship.

Of the same set of students, 47 per cent. of the smokers won places on the athletic teams, while only thirtyseven per cent. of the non-smokers got places.

These figures, Dr. Meylan claims, are typical and representative, but the wishes it understood that he in no way defends the use of tobacco. He merely publishes the true results of extensive investigation.

# ERROR IN TICKETS-CONCERT STARTS AT 8

Limited Number of Tickets Left for the Winter Concert.

Owing to a typographical mistake, the commencement of the winter concert was printed as being at \$30. Now the manager of the Musical (Continued on page 3)

#### SALISBURY LEADS IN DU PONT COMPETITION

Scores 17 More Than N. D. Mac-Leod, 1913, Who Takes Second Place.

ONLY SIX COMPETITORS.

Fall Trials for Du Pont Cup Show An Astonishing Lack of Interest.

The standing at the close of the Fall competition for the Du Pont Cup is as follows:

W. C. Salisbury, 1911, 212 points.

(2) N. D. MacLeod, 1913, 195

points R. H. Gould, 1911, 169 points.

 P. Dalrymple, 1912, 110 points.
 P. D. White, 1911, 92 points.
 L. Standish Hall, 1914, 47 (4) (5)

(6)

The rules of the competition provide that each man shall compete in three events, one track event, one field event and one weight event, points being based on a standard rating which was published in The Tech on Tuesday, October 25. The object of this competition is to develop allround athletes and thus to help to get together a well-balanced, all-round team. This year the competition is open to all four classes, but in following years it will be confined to the Freshmen and Sophomores. The man who has the highest aggregate score at the end of the Spring competition next year will be presented with a replica of the cup, and will have his name inscribed on the original, which is to be kept permanently at the Union.

The points in the Fall competition were scored as follows:

Tuesday, October 25—W. C. Salisbury, 1911, pole vault, 10 feet 7½ inches, 100 points; discus, 78 feet 3 inches, 12 points; 440-yard dash, 53 4-5 seconds, 100 points. Total, 212 points.

Tuesday, November 1—L. Standish Hall, 1914, high jump, 5 feet 1 inch, 40 points; shot-put, 21 feet 5 inches, no points; 220-yard dash, 29 seconds, 7 points. Total, 47 points.

Wednesday, Nov. 2-P. Dalrymple, 1912, high jump, 5 feet 7 inches, 90 points; 100-yard dash, 12 seconds, 20 points; discus, 73 feet 6 inches, no points. Total, 110 points.

N. D. MacLeod, 1913-Discus, 101 feet 334 inches, 100 points; 220-yard dash, 263-5 seconds, 35 points; broad jump, 18 feet 10¼ inches, 60 points. Total, 145 points.

P. D. White, 1911-440-yard dash, 56 seconds, 90 points; broad jump, 16 feet 1 inch, 2 points; no weights. Total, 92 points.

R. H. Gould, 1911-High jump, 5 feet 5½ inches, 75 points; 440-yard dash, 55 3-5 seconds, 94 points; shotput, 30 feet 4½ inches, no points. Total, 169 points.

# CALENDAR.

Friday. 1.45-E. E. Excursion. 4.15—Gym Team Practice—Gym. 5.00—Aero Club—Union.

5.30—Hockey Practice—Arena.
5.30—Orchestra Rehearsal—Union.
8.00—Friday Evening Entertainment with T. C. A.—Union.
4.15—Swimming Team Meeting at the Cabot Tank

the Cabot Tank, 6.30-T. C. A. Dinner-Union,

Tuesday.

1.00—Tech Board Meeting—Union. 1.30—Union Committee Meeting— Dean's Office.

4.00—1913 Cross-Country—Gym, 4.00—1914 Cross-Country—Gym. 4.00—Glee Club Practice—Union;

FORGET CONVOCATION AT 2 P. M.

# THE TECH

Published daily, except Sunday, during the college year by students at the Massachusetts Institute of Techmology.

Entered as second-class matter, Sept. 29, 1910, at the post office at Boston, Mass., under the Act of Con-gress of March 3, 1879.

S. E. Bates, 1911......General Mgr. News Board.

G. M. Keith 1912-..-Editor-in-Chief E. W. Tarr, 1912..... Managing Editor T. E. Senior 1913. Gen'l News Editor R. S. Rankin, 1913. . Athletic Editor A. L. Myers, 1911....Institute Editor

Business Board. H. W. Hall, 1912. Business Manager J. B. Nealey, 1912....Advertising Mgr. A. T. Gibson, 1913..., Circulation Mgr.

Associate Editors. E. W. Taft, 1913......Societies P. L. Flansburg, 1912.....Athletics

> News Staff. M. Paris, 1914. Business Staff.

M. Lewis, 1913. K. S. Johnson, 1914.J. C. Morse, 1914. D. E. Van Volkenburgh, 1914.

Art Staff. W. S. Crost, 1912. H. B. Horner, 1913.E. C. Taylor, 1914.

Office, 42 Trinity Place, Telephone, Back Bay 2184.

All communications should be addressed to the proper departments.

Subscriptions \$2.00 per year in ad vance. Single copies 2 cents.

Subscriptions within the Boston Postal District and outside of the United States must be accompanied by postage at the rate of one cent a

Printed by Croke Printing Co.

### FRIDAY, DECEMBER 9, 1910.

It seems strange that an honor so great as that of winning the Du Pont cup should have brought out no more than six contestants this Fall. winner may rightfully claim the title of the best all-round athlete at the Institute, but to be truly representative, the contest should receive the active support of the track men as a whole. There are surely more than six men at the Institute who could make a creditable showing in competition for the trophy, and each of these men should have taken his trials this Fall. The "Oh, what's the spirit is altogether too strong at Technology.

We are certainly fortunate in being able to hear twice today such a man as Mr. Towson. Mr. Towson is Industrial Secretary of the International Young Men's Christian Association, having as his field of work the entire United States and the Dominion of Canada. Thus he is in a position to be thoroughly conversant with mod-ern industrial systems throughout North America. His work has brought him intimately in touch with immigrant question, especially with that phase which deals with the relation of the immigrant to his employer. Mr. Towson has the magnetic personality which is unconsciously developed by a man heart and soul enthusiastically absorbed in the solution of a problem. He is a er rather than a mera i he has a great deal to tell which will prove vitally useful to all future engi-

The Convocation will undoubtedly bring out all but the most hopelessly indifferent of the student body, and the more informal talk at the T. C. A. meeting in the evening should attract as large a number. Owing to its informal nature, Mr. Towson's talk in the evening is apt to be fully as instructive and inspiring as his more conventional address in the after-Other speakers in the evening will be Dean Burton, Mr. Claghorne of the Boston Y. M. C. A., and Mr. Tupper, who spoke on the Immigrant

Question at the T. C. A. reception this Fall. Those who attend the T. C. A. dinner tonight will have an opportunity to meet these men in a more personal and intimate manner. Nothing short of absolute indifference to opportunity will be responsible for a small attendance at the Union tonight. The speakers have something to tell you worth hearing, so don't miss it.

#### COMMUNICATION.

Editor of The Tech:
Dear Sir:—I have been receiving The Tech for some time as a member of the corporation, but as I find the paper valuable in many ways, I am glad to enclose a cash subscription of \$2 for the current year.

I take the occasion to say, as one of the early editors of the weekly Tech. that your daily issue is extremely well edited and is the best college paper which I know.

Very truly yours, A. LAWRENCE ROTCH, M. I. T., 1884.

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(Continued from Page 1)

Friday night entertainment. The Christian Association will hold a dinner at 6.30 in the small dining room of the Union, having as its guests some of the speakers of the evening. The general subject which will be discussed is "Social Service." The following will be the speakers: Mr. C. R. Towson, who is also to speak at the Convocation today; Dean Burton, Mr. D. M. Claghorn, Mr. G. W. Tupper and Mr. J. I. B. Larned, ex-1909, who was holder of the intercollegiate tenns championship, both singles and doubles, while at the Institute. The committee in charge considers itself very fortunate in securing these speakers, especially Mr. Towson, who thoroughly understands the subject. It is hoped that there will be a good attendance.

The purpose of the T. C. A. dinner preceding the speaking is to bring those men interested personally in contact with the speakers. They will be glad to talk individually with the men at the dinner, as there is plenty of opportunity for social service work in and around Boston which the T. C. A. hopes to take up, the speakers can give advice to the men. It is expect ed that there will be a fair attendance at the dinner, and as it is the beginning of the active work of the Association for the year, all men intending to join it should be present.

(Continued from Page 1) Clubs desires it to be known that the concert starts promptly at 8 o'clock. The tickets are going fast, and since there are only about four hundred seats in the hall, it is necessary for those who desire seats to get them immediately. The popularity of the Combined Musical Clubs has already spread beyond the limits of the city, for the entire house at Auburndale has been sold out for the coming concert there. The members of the club playing in this concert must be at the Trinity Place station at promptly 7 o'clock on December 13th, and must be in full evening dress.

The State Universities of Arkansas, Louisiana, Mississippi, Texas and Tennessee have formed "The Pentagonal Debating League.'

#### PULLMAN COMPANY'S OFFER OPPOSED.

The Pullman Company, before the Interstate Commerce Commission, recently offered to reduce the rates charged for upper berths in sleeping cars twenty per cent. This offer was opposed by attorney-generals of four States, on the ground that the cut in price was insufficient. One of them stated that twenty per cent. reduction did not represent the difference in service between upper and lower Two railroads opposed the offer on the plea that the reduction was too much. These were the Great Northern and the Chicago, Milwaukee and St. Paul, both of which own their own sleeping cars, and would have to stand the entire loss caused by any reduction in price.

The commission will hear further

orguments and receive evidence bearing on the case at some further hear-



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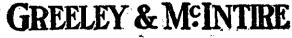
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Two volumes of Technique for sale. 1894 and 1895; 1895 is dedicated by President Walker and has his picture as a frontispiece. Apply at Room 36, Walker.

LOST.

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#### NOTICE.

LOST-A slide rule with owner's name on it. W. Muther, Cage.

LOST-Jewelled Theta Pi Fraternity Pin. Inscription on back. W. E. Humphreville. Please leave at Cage (55-2t)

### NOTICE.

Ballots for Prom Committee Elec-tion may be had at the Cage and must be handed in again at the Cage before 4 P. M., Monday, December 12. Absolutely no ballots will be accepted after that time. Dues may be enclosed with the ballot envelopes, and must be signed.

ELECTION COMMITTEE.

### SWIMMING TEAM.

All candidates report at Cabot Street Tank Friday, December 9th, at 4.15 P. M. Take a Columbus avenue car to Ruggles street, turn to the left and walk three blocks to Cabot street. (55-1t) HENRY A. BABCOCK.

#### NOTICE.

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1913.

Managers for class baseball and basketball teams will be elected Tuesday, December 13. Nominations for these positions, signed by ten members of the class, may be left at the Cage for the Executive Committee, not later than 4 o'clock of that

S. M. BAXTER, Clerk. (54-57)

# Tech

Offers Opportunities for Mutual Benefit In the Competitions for the Various Offices IN NEWS ADVERTISING

Those in charge of each of these departments can be found in THE TECH Office from 8:30 to 9:00 daily.

AND CIRCULATION

The 1913 Tug-of-War Picture will be taken at Notman's Studio on Park street, December 13th, at 1 P. M. Please wear the regular (5t)

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