

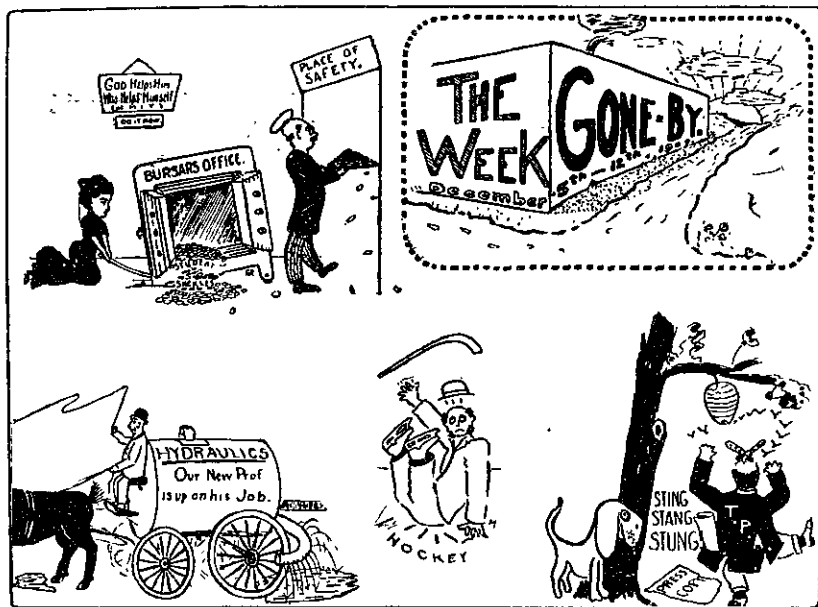
THE TECH

DAILY

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PRICE ONE CENT



ANNUAL WINTER CONCERT OF MUSICAL CLUBS

**New Selections To Be Rendered
--Dance Will Be Second
Only To Prom**

The annual winter concert of the combined Glee, Mandolin, and Banjo clubs, will be held Friday evening of this week. The clubs gave an excellent program at the Wesleyan concert on November 26th and it is only to be expected that the winter concert will be even better than any of the preceding concerts.

Copley Hall in which the affair takes place, is on Clarendon St., near the Lowell Building. This hall, which is very large and well ventilated, will be handsomely decorated for the occasion.

All three of the clubs have a number of snappy selections which have not been rendered before. The Glee club especially, has two new songs which are very catchy.

After the concert, comes dancing until 2 A. M. and it is planned to make the dance rank second only to the Junior Prom. There will be approximately two hundred couples dancing. The order contains twenty dances and every one is a good number.

The music for the dance will be by A. F. Thode's orchestra, which is now practically the only one used by Institute organizations. It will be remembered by those who attended Class Day last spring, that this same orchestra rendered some fine selections on that occasion.

Tickets are going rapidly and it is requested that intending purchasers secure their tickets at once, for good seats are becoming scarce.

W. W. Warner, general manager and J. S. Martin, assistant general manager, are certainly doing their best to make this concert better than any previous one and with the aid of the student body they will be able to do so.

The easiest way to make sure of tickets is to get them now at the Union. The management has a representative there every day from twelve till two o'clock.

Tonight comes the third T. C. A. dinner. Mr. J. F. Chase, secretary of the Watch and Ward Society, will speak on "The White Slave Traffic." This talk will be followed by a short discussion pertaining to the relation of christian citizenship to political service.

IMPURITIES IN STEEL CAUSE MOST FRACTURES

**Professor Fay Speaks To C. E.
Society On The Failure Of
Steel Structures**

Just fifty men attended the meeting of the Civil Engineering Society, last evening. After a very good dinner in the Union dining room, the members adjourned to the upper rooms of the Union where Prof. Fay addressed the body.

Prof. Fay spoke on "Causes of Failure of Structural Materials," a subject along the line of which he has made very important investigation. He first gave a short sketch of the history of microscopic examination of steel. Steel, he said, is a combination of iron and carbon but in the process of manufacture, other elements, manganese, sulphur, silicon and phosphorus, get into it. Some of these give an increase of strength but unfortunately decrease the ductility of the finished product.

These impurities streak when the steel is rolled, thus making a weak point in the material. Under the microscope, the evidence of these streaks is brought out and thus the weakness may be avoided.

The engineer gives orders for structural steel having certain qualifications and, if in the manufacture, these specifications are not carried out, the steel will be liable to break. The microscope also brings to light whether the steel is composed of the materials desired or not.

At the close of his lecture, Prof. Fay showed some interesting slides illustrating these points.

CURRENT EVENTS

President Taft reached New Haven yesterday. A special meeting of the Yale corporation, of which President Taft is a fellow, was held in Woodbridge Hall.

King Leopold of Belgium was operated upon successfully yesterday. The operation was made in the nick of time, since the King's condition has been doubtful due to intestinal troubles.

A statue in heroic size of the late Prince Ito is to be erected in Seoul, largely through contributions from the poorer Koreans, who are thus showing their appreciation of their former resident general.

INSTITUTE STATISTICS AND FACTS REPORTED

**Five-Year Courses Gain Mem-
bers--Only Eight Women
Students At Tech**

At the recent meeting of the corporation, Registrar Walter Humphreys submitted a most entertaining report, giving statistics and facts of interest to all. In part, the report is as follows:—

The registration shows that the number of students is 1,479, a slight gain over last year. The total number of regular members of the instructing staff is 210. The ratio of the instructing staff to the student body is one to seven. Ten years ago this ratio was one to eight and eight-tenths.

Even though the number of students is greater this year, the numbers in the four classes are slightly smaller, except in the Sophomore class. For a number of years the classes have grown smaller as they replace the class above except where the first year class replaces the second year, but this year there is a gain instead of a loss. There is also a gain in the number of students above the fourth year. This year there are 31 resident fellows and other candidates for advanced degrees against 26 before.

Only eight women are at present in the Institute, two of whom are taking regular work.

The number of regular students relatively to the special students is larger; this year 69 per cent of the students are regular while only 65 per cent were in regular standing last year. A student is regular when he has a clear record in all of the subjects required up to the point of his connection with the Institute; a student may be special either because he has not fulfilled these requirements, or because he is simply taking a few subjects or less than full work.

In the three upper classes, 83 per cent are taking engineering courses, 7 per cent, scientific courses, and 10 per cent are in the architectural course. The first year class does not enter in this calculation because they have not elected their professional course yet. The per cent of those in the scientific courses has dropped slightly, and that in the architectural course has risen. There are gains in civil, mechanical and sanitary engineering, with a slight drop in mining and electrical engineering.

The number of college graduates is 200; Yale, Dartmouth, Harvard and the Naval Academy have the largest number of representatives out of the total 84 colleges having graduates here. There are also 183 new students from other colleges.

More students are registered in the regular five-year courses than ever before. Many are taking these courses so as to cover the work of two professional departments. The combinations of two courses are: civil and sanitary engineering, mechanical and electrical engineering, mechanical engineering and naval architecture, and electrical and chemical engineering.

The average age of the first year students at entrance is 19 years, a month less than the average age of the previous first year class. Excepting last year, the average age had not exceeded 18 years and 11 months for ten years.

The age of the graduating class was one month greater than last year. It was 23 years and one month, but the average age at graduation has been as high as 23 years and three months. The 233 graduates of last year raised the total number to 4,361. Half of this number have graduated within the last ten years, or since 1899.

(Continued on page 2.)

FRESHMAN DINNER TOMORROW NIGHT

**Dean Burton And Mr. Carb Have
Been Asked To Speak--Pipes
To Be Given Out**

To-morrow is the date set for the Freshman dinner. Next to Field Day, this stands first in importance in the list of events of the first year students at the Institute.

The dinner committee has done its best to provide a satisfactory menu and an interesting group of speakers, so as to make it the most successful affair of its kind, that has ever been held.

This dinner has probably caused more attention than any ever held before; due to the fact that it is the first one not held at the Union. The dinner committee give as the reason for not holding their dinner at the Union, that it is the consensus of opinion on the part of the majority of the 1913 students, that the meals at the Union have been altogether satisfactory.

This is the chief reason for the change, for the committee augured that the idea of the dinner in the first place was to stir up enthusiasm for the Institute, on the part of the members of the 1913 class. And, as this enthusiasm they seemed to feel, could not be raised by an evening at the Union, the dinner was arranged to take place in the Crawford House.

On each succeeding day of the past week the tickets have been selling better. The exact number that will be present is not yet accurately known but there is little doubt but that it will approach something very near one hundred and fifty. Tables have been specially reserved for the freshman football and track teams. The menu prepared by the steward of the Crawford House is one which is satisfactory to the committee in every detail and there is little question that a hotel which makes a practice of catering to large parties, will be able to serve a dinner, well cooked and palatable.

In the matter of the speakers the committee has been particularly fortunate. As has always been the custom, Dean Burton will be on hand to deliver one of his usual pleasing addresses. In securing Mr. Carb, the new instructor in freshman English, another good speech is assured. Mr. Carb graduated from Harvard last year and has already made himself very popular among the men who study under him. Two other men, who may possibly be present to say a few words, are Prof. Talbot and Mr. Rand, the Bursar. In addition some of the students themselves, who have been prominent in any of the activities so far this year, may be called upon to say a few words.

Another event that will create considerable interest is the presentation of the class pipes. These will be given out at the close of the dinner and then will be simultaneously lighted at a signal from the president.

CALENDAR.

Wednesday, December 15.
4:00 Basket-Ball Practice—Gym.
4:00 Gym Team Practice—Gym.
4:15 Institute Committee Meeting—Room A. Union.
5:00 Senior Portfolio Nominations Close.
6:30 T. C. A. Dinner—Union.
6:30 Penn. Club Dinner—Union.
8:00 Chemical Society Meeting—Union.
8:00 British Empire Assoc. Meets—Harvard Canadian Clubhouse.
Thursday, December 16.
4:30 Physical Society Meeting—20 W.
7:00 1913 Dinner—Crawford House.
7:30 Mining Eng. Society Meeting—Union.