

BEARING WORKS INSPECTION TRIP MADE THURSDAY

Machine Shop Class Views Precision Gauges

The Thursday machine shop class made an inspection trip to the Ahlberg Bearing Co. at 29th Street and Prairie Avenue. Mr. McQuinn, secretary of the company, made all arrangements.

The thirty men who were present were divided into groups of six each, a guide conducting each group through the plant. This plant specializes in ball-bearings and a high degree of accuracy must be attained. The minometer, a device which measures within a forty-thousandth of an inch attracted general attention.

Machines which cut the inside and outside diameter and the ball race, and chamfer the ends of the stock all without human supervision, were performing these operations, casting aside the finished product, and starting the next with tireless regularity.

The bearings are hardened by being heated to about 1525 degrees and quenched in oil. The heating furnace is equipped with a recording thermocouple showing the temperature of the rings or bearings at all times. After cooling they are heated to 300 degrees to complete the process.

After examining some drawings showing various ball bearing applications, the men were taken to the office, where Mr. Okner, engineer of the company, talked on bearings. He mentioned that the ordinary friction bearing has an efficiency of 96 per cent while ball bearings are 99 per cent efficient. This means a large saving of fuel. A few questions were asked, then booklets and rules were distributed and the men departed homeward.

General F. Dixon Talks to Group

The importance of the engineering department at the National Board of Fire Underwriters was the theme of the talk by General Frank S. Dixon, who is associated with the National Board, at the meeting of the F. P. E. Society last Friday morning in C Mission. E. A. Scanlan, Jr., president of the society, introduced the speaker.

The topic was "The Organization and Function of the National Board." General Dixon first stressed the importance of fire insurance, giving a new and broader definition to the term. Most of the nation's business is transacted on faith and confidence, which the bankers call credit.

The National Board is a voluntary organization or superstructure, which has no authority over its members and no jurisdiction over rates or premiums. Its main purpose is educational.

The board is divided into various committees such as Actuarial, Finance, Legal, and Fire Prevention Engineering.

This body maintains a corps of technical engineers who are sent to various municipalities to study fire hazards and protection facilities and makes recommendations to the city officials. Surveys are made without cost to the cities and carry no authority. However, studies show that where the recommendations have been rejected, the "burning ratio" has increased.

Engineers who establish civic standards make non-political and thus more authentic surveys. One feature which was an important part of the work was standardization of hose couplings and sprinkler systems. At one large fire, the fire trucks were called from a neighboring town but were unable to assist because of odd size couplings. Fortunately, most of these conditions have been eliminated. Another important feature is the work accomplished in the Underwriters' Laboratories.

General Dixon is connected with the legal end of the National Board. He served in military service for 29 years both in the Spanish-American and World War.

Professor J. B. Finnegan, head of the F. P. E. department and C. P. Holmes, assistant professor, were present along with about sixty F. P. E. students.

FRATERNITY NOTES

THETA XI

Last Monday, November 16, a smoker was held at the house for the Freshmen and on Tuesday night they were pledged. The following men are now wearing the pledge button:

C. Adair, M.E., '34.
F. Cassil, Ch.E., '35
K. M. Hanson, E.E., '35.
L. R. Ingram, C.E., '35.
H. C. Reynolds, E.E., '33.
W. Scharringhausen, C.E., '35.
F. Schwab, C.E., '35.
C. T. Seaberg, Arch., '34.
R. Smith, Ch.E., '35.
V. Smith, F.P.E., '35.
L. C. Willis, Ch.E., '35.

In honor of the new pledges there was a dance at the house last Saturday night.

Four brothers from Ohio State stayed at the house over last Sunday. They were on their way home after visiting the Wisconsin Chapter during Homecoming.

TRIANGLE

This Wednesday evening a radio dance will be held at the house. The majority seem to think that they need something to take their minds off of school and put them in a spirit for the vacation.

Last week Bro. Don Fetterman '31, who has been living at the house until now, left for New York City.

The basketball team has begun its work in earnest. Monday a game was played with S. K. D. to get the basketballers in trim for the coming interfraternity contests.

BETA PSI

Brother H. Hostetter was formally initiated into the fraternity last Friday and immediately following the initiation, a banquet was held in his honor.

DELTA TAU DELTA

An election of officers to fill the vacancies recently left in the chapter was held last week. The newly elected officers are:

President—Marshall R. Beal.
Vice-President—Glen W. Schodde.
Messenger—John McLane.

Doc Weiland's 30th annual banquet for all Delta freshmen was given Saturday, Nov. 14, at the Interfraternity Club. All our freshmen and a good number of actives and alumni were present. Among the alumni was H. R. Harbeck, '02, one of the Charter Members of Gamma Beta Chapter.

Three Division Presidents, members of the Arch Chapter of the Fraternity, attended the banquet and later stopped in at the House for a visit on Sunday.

SIGMA KAPPA DELTA

"Chief" Stehno, '31, last year's Tech mound ace, found his way over to the House this week. During the past summer he starred as pitcher for Dubuque baseball team.

The annual all-house ping-pong tournament is nearing the end of the first round. Several men have discovered hitherto unknown talents and are making heroic efforts to round into championship shape for their first matches.

Final results in the big bridge game give the Professors the edge. Professors Leigh and Eeald showed "Charley" Hawes and "Bill" Booth just how the game should be played.

PHI PI PHI

Phi Pi Phi announces the pledging of Miles B. Hora, E.E., '35.

Saturday, Nov. 14, the pledge dance was held. Besides alumni, actives and pledges, the following men from school attended: Frank Ustrycki, Frank Koko, Raymond Tilt, George Stalzer, and Richard Meagher. It rained, of course, but that didn't dampen the spirit of those who attended, as everyone had a good time.

FLUNK NOTICES SOON

Flunk notices will be issued by the Dean's office Monday, November 30, following the Thanksgiving holidays.

The recipient of a failure notice is not necessarily going to fail in the subject, but he is warned that to date his work has not been satisfactory.

E. G. Stecher Talks On Train Control

A talk on Automatic Train Control Systems, at the A.I.E.E. meeting held last Friday was given by E. G. Stecher, signal engineer of the Chicago and Northwestern railroad.

Control is necessary when more than one train is run on the same track. In order that trains running in the same direction may be properly spaced, the track is divided into sections one or one and a half miles in length, called blocks.

The old fashioned system of control used the familiar block semaphores at the beginning of each block. These semaphores indicated that the train should stop if another train were in the block ahead. If the engineer failed to regard this, an accident was likely to occur.

Other systems were developed but proved faulty, until the "two speed continuous automatic train control system" was invented. It is the most modern system and is used on trains of the Chicago and Northwestern railroad.

When the train is run at an excessive speed (50 miles per hour for freights and 73 for passenger trains) two horns are blown in the cab of the locomotive. One of these stops when the engineer pulls an acknowledging lever. The other horn blows until the speed is reduced. If the engineer fails to reduce the speed, the brakes will set automatically.

ARX NEWS

Results of the Senior Judgment in New York have been returned, and to Donald Braun go the honors! A second medal was awarded him by the New York jury, his plate having exceptional merit. There were a few mentions and half mentions, and then the seniors began work on their terra cotta plant.

Tough? Oh boy, are those juniors tough! Last year during a baseball game, if you remember, a senior's collar-bone was broken. Never failing to uphold that good old Armour custom, the juniors helped break George Nelson's collar-bone a week or so ago, then feeling that they left their own dear class out, they patiently waited their time and smashed into Sydney Shapiro and cut his face rather badly with his glasses. Mighty lucky for Syd that he's cross-eyed or he might have lost an eye! All joking aside though, we hope both you fellows heal up mighty fast.

Silence! Silence! Not a sound could be heard. Then the click that comes from perfect elasticity! Well, I'll be; those architects are playing billiards again. Funny how lunch hours stretch from a half hour to an hour and then to an hour and a half and then Oh well, with Roy Phlak on the wrong end of a cue, even Sandy Sandstedt hasn't got a chance. Betcha Willie Hoppe could beat Roy!

Memorial Window Depicts Success

The memorial window to Philip D. Armour, Jr., was presented to the Armour Institute in 1901 by the Church Glass and Decorating Co. of New York. It was designed and built under the personal supervision of Edward P. Sperry, art director of this company.

The subject illustrated in the Armour Memorial is "Success," a very difficult theme to portray. In the central opening of the window is depicted the figure of a young vigorous man. The artist has striven to express by this figure that success can not be waited for, but must be grasped and conquered by brain, force, and energy. The young man has not waited for success to come to him, but has gone forth and taken from the altar of fame the crown of triumph. He has fought through every difficulty, and has reached success and fortune by his own efforts and deeds.

The side panels personify heat, light, gravity and motion, and show that man, having taken these under his control, has used them for his material welfare and benefit.

It should point out to ambitious students that in their correlation and conservation they have been the instruments through which successful men have obtained a place in the Temple of Fame.

NEW BOOKS

J. R. Cameron
Sound pictures

Carl Clemens
Religions of the world

C. H. Grattan
The critique of humanism

T. C. Hall
Religious background of American culture

E. S. King
Celestial photography

C. S. Parsons
Amateur stage management

W. B. Pitkin
*Art of sound pictures

A. A. Roback
Personality

Samuel Selden
Stage scenery and lighting

C. G. Shaw
The road to culture

W. S. Walsh
*Cultivating personality

E. J. Wall
Practical color photography

*(Reviewed in this issue.)

"I protect my voice with LUCKIES"

"It's that delightful taste after a cup of coffee that makes Luckies a hit with me. And naturally I protect my voice with Luckies. No harsh irritants for me . . . I reach for a Lucky instead. Congratulations on your improved Cellophane wrapper. I can open it."

Edmund Lowe

Who can forget Edmund Lowe as "Sergeant Quirk" in "What Price Glory"? That mighty role made Eddie famous in filmland—and he's more than held his own in a long line of talkie triumphs. We hope you saw him in "The Spider." And be sure to see him in the Fox thriller "The Cisco Kid."

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***Is Mr. Lowe's Statement Paid For?**
You may be interested in knowing that not one cent was paid to Mr. Lowe to make the above statement. Mr. Lowe has been a smoker of LUCKY STRIKE cigarettes for 6 years. We hope the publicity here-with given will be as beneficial to him and to Fox, his producers, as his endorsement of LUCKIES is to you and to us.

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