



## SOCIAL CHAIRMAN ASKS FOR AID ON SENIOR INFORMAL

### Money Must Be Collected Before Definite Plans Are Made

### CLASS FUNDS ARE LOW

The Armour Tech News has received a statement from W. C. Schirmer, social chairman of the senior class, which explains the delay in the making of plans for the Senior Informal. The statement follows:

"Class loyalty and support will determine whether there will be a senior class dance this year. Because of the financial situation of the class, the school authorities are unwilling to guarantee the expenses of a class dance. This necessitates financing the entire dance with the money received from the selling of bids.

"Thus, it will be necessary for the social committee to collect all the money necessary to give the dance before making any reservations or engaging an orchestra. In other words, before the dance can be definitely decided upon, the necessary amount of money must be on hand.

"Will the members of the class be willing to pay for the bids to the dance, without first being informed as to the place where it will be held and the orchestra which will be engaged? This is the question that confronts the social committee. The answer to it depends upon the amount of loyalty and spirit which the school possesses. The committee believes, and is willing to try and prove to the class that a dance can be put on which will be a success both socially and financially.

"If the class is willing to give them the support needed, they will give their utmost efforts to the promotion of a successful dance. This is perhaps the first time that such a situation has arisen, and it no doubt will be an interesting problem, both to the students and the school authorities."

## Former Comptroller Visitor at Institute

Mr. F. U. Smith, former comptroller of the Institute, visited the Faculty Club Wednesday afternoon, meeting old friends.

Mr. Smith was the first comptroller and business manager of Armour Mission and Institute. He came to Armour in 1902 and retired in 1920.

He left his home in Milwaukee to visit in Chicago for about a month.

## Professor Amsbury Addresses Teachers

Professor Amsbury presented a series of five lectures last week to the members of the Teachers' Institute of Schuylkill County, Pottsville, Penna. His audiences averaged twelve hundred persons.

Two of his subjects were, "John Brown's Body," based on the famous narrative poem by Stephan Benet, and "Literature As an Inspiration and Power."

## Doctor G. L. Scherger Speaker at Dinner

Doctor George L. Scherger was guest speaker at a dinner given by the Steuben Club last Wednesday evening, October 29.

The dinner was given to celebrate the founding of a new American Legion Post. This foundation, it was said, shows the advance the American Legion is making. The national commander of the legion was present in addition to other notables.

## Three Honorary Fraternities Pledge Twenty-one Seniors and Juniors

### NEW MEMBERS ARE WELCOMED AT SMOKERS

Three honoraries have announced the pledging of a total of twenty-one men during the past week.

Tau Beta Pi, honorary engineering fraternity has selected the following men from the student body for its pledges:

- D. M. Fetterman, E. E. '31.
- K. E. W. Hellsen, C. E. '31.
- F. M. James, F. P. E. '31.
- A. J. Lenke, F. P. E. '31.
- P. E. Seidelmann, F. P. E. '31.
- F. F. Strassenburg, M. E. '31.
- R. H. Stevenson, M. E. '31.
- J. C. Cavanagh, Ch. E. '32.
- C. J. Robin, C. E. '32.
- S. M. Lind, Ch. E. '32.

Dean Penn presented the men with their pledge pins. Professors Grafton and Heald. Alumni from the Armour Chapter, Illinois Beta, and two men from the Purdue Chapter were also visitors.

## W. S. E. Smoker To Be Tomorrow

Plans have been going forward for the smoker to be given by the Armour Student Branch of the Western Society of Engineers to be held November 5th at the Sigma Kappa Delta house. The affair promises to be the best ever given by the W. S. E. The officers have been working very hard to get up a program which is sure to please everybody. Several members of the faculty have also promised to be there.

This smoker is for the primary purpose of getting acquainted with other members of the department. For this reason, sophomore and freshman students are urged to come. It is not necessary to be a member of the branch. Tickets can be purchased from all of the officers and some of the members. The cost is nominal, being 25 cents apiece.

## Campus Club's Drive Nets 32 New Members

Thirty-two members is the result of the membership drive recently put on by the Campus Club. The club roster is still, however, open for new members.

Art Viel and George Moore, almost permanent Campus Club fixtures, are the champions of chess. Art recently donated an Atwater Kent radio for club use.

Some of the Junior Chemicals have become absent-minded. They throw their sandwiches on the table and take a bite out of their bridge hands.

## Chief Engineer's Auto Stolen and Returned

John Allen, Armour's chief engineer, had his Studebaker coupe stolen on Saturday, October 8th. The police department recovered the automobile on October 25th, two and a half weeks after it was stolen, and returned it to Mr. Allen. He was fortunate in getting the car back in better shape than when it was stolen. In addition to this, the insurance company offered to pay for a thorough overhauling of the machine. The net result of this mishap was very profitable to Mr. Allen.

Phi Lambda Upsilon will hold a smoker in its rooms tomorrow night at 8:00 P. M. A number of alumni are expected to be present.

Thursday, October 30, Chi Epsilon, honorary civil engineering fraternity, held a pledging smoker at the Phi Pi Phi house. Card playing and refreshments furnished the entertainment. The welcoming speech to the pledges was given by Eldon A. Johnson, president of the Armour Chapter.

- The men pledged are:
- C. H. Miller, '31.
- R. E. Meagher, '32.
- M. J. Morgan, '31.
- F. E. Rutkowski, '31.
- A. B. Auerbach, '31.

Pi Tau Sigma, honorary Mechanical Engineering Society, held a smoker at the Sigma Kappa Delta house last Thursday evening. The fraternity pledged the following men:

- Harold H. Fox, '31.
- Andrew S. Hartanov, '31.
- Mitchell, J. Lamka, '31.
- Fred T. Munch, '31.
- Newton C. Cannon, '32.
- Harold R. Davis, '32.

Professors Gedhardt, Roesch, Libby, Peebles, and Huntley were present at the smoker. In addition to the five faculty members present there were several alumni members of the fraternity present.

## TWO ELECTRICALS GIVE SPEECHES AT A. I. E. E. MEETING

Two student talks were given at the regular A. I. E. E. meeting held yesterday at 10:30 in D-Mission.

The first talk was given by T. S. Tryzna on "Prospecting by Electrical Methods." In this he explained that the presence of iron, industrial, and precious metals may be detected in the earth's crust by electrical devices. The various methods or circuits are all in the experimental stage, however, should they become perfected to a great extent, mining would be simplified.

The second talk was given by R. G. Kellner on "The Electrolysis Problem as dealt with by the Illinois Bell Telephone Company." Last summer Kellner was with the I. B. T. and did some work on this interesting subject.

When the electrical cables are placed in the earth and left there for a considerable time, it is found, when they are again unearthed, that they are corroded. Electrolytic action is responsible for this and Kellner gave a number of ways in which the Telephone Company is combating the corrosive forces. Bonding, covering the cable with a special preparation, using a double trolley system, and employing a negative return booster system are some of the methods.

Before the talks were given a short business meeting was held. Members were urged to pay their dues and it was announced that some engineer of note would speak at the next meeting to be held on Monday, November 17.

### CALENDAR

- Tuesday, Nov. 4th  
First call for varsity basketball candidates.
- Wednesday, Nov. 5th  
8:00 P. M.—W. S. E. Smoker at the S. K. D. House.  
8:00 P. M.—Phi Lambda Upsilon Smoker.
- Friday, Nov. 7th  
W. S. E. Meeting.
- Saturday, Nov. 8th  
Chicago—Purdue Game.  
A. I. T. Ushers.

## Social Program Listed by Casey

The following is a statement received by the Armour Tech News from James J. Casey, social chairman of the junior class.

"The junior year for any class is more nearly a social year than is any other of the four which constitute its life. This statement is supported by the fact that the junior class sponsors two dances during the year while the other classes give only one each. The social committee realizes this and fully intends that the junior year of the class of '32 shall live up to the standard set by those of previous classes.

"Financially, the class is in a healthy condition due to the support that the officers have received from the members in the past. With the same spirit of cooperation and support, we will go far in making this our biggest social year.

"The committee in charge of the arrangements promises the class that the dances this year will not be extravagant in nature. The best possible entertainment will be provided but expenses will not be allowed to exceed the financial resources of the class.

"The committee believes that a socially successful dance without the unpleasant aftermath of debt will receive a greater welcome from the class than will an over-expensive dance that will be followed by financial distress.

"The dances given by the class are the informal in January and the formal during Junior Week. The dances will be given according to the principle set forth above, and on this platform the social chairman appeals to the class for its support.

"The close cooperation of the school officers and the class was very apparent in the recent discussions of a possible Junior-Senior dance. The class is grateful for the attitude taken by the office in this matter. The obvious difficulties arising from such an affair were of such a nature as to prevent its consideration by the junior class."

## Frosh Class Selects a Social Committee

L. A. Callen, elected social chairman of the freshman class, has selected the men who are to assist him in arranging for freshman social functions.

- The following comprise the committee:
- T. J. Milan.
- L. Lynch.
- B. Peterson.
- With R. Cheatham, freshman president, as ex-officio member.

## New Eligibility Rule Adopted by Honor "A"

Ten men were present at a meeting of the Honor "A" Society held last Friday in Science Hall at 2:00 o'clock. The first order of business was the passage of a new rule restricting membership in Honor "A" to Juniors and Seniors only. Bids will be given to fifteen men in the very near future. At the present time the Honor "A" Society boasts a membership of fourteen men.

## Dean Palmer Attends Personnel Conference

Dean Palmer attended a meeting on student guidance and personnel held at Northwestern University on October 24 and 25. Representatives from high schools and colleges in this section attended the conference. A paper was presented by Col. Rees, vice-president and director of personnel of the American Telephone and Telegraph Company.

## AVERAGES TO JUNE COMPILED BY DEANS' OFFICE FOR CLASSES, FRATERNITIES AND INDIVIDUALS

### Tau Beta Pi Regains Lead Among Honoraries; Pi Tau Sigma Second

### CHEMICALS LEAD DEPARTMENTS

Scholastic statistics covering the second semester of the last college year (1929-1930), have been compiled by the office of the Deans and appear in complete form below.

A glance at the averages of the four classes (Freshman, Sophomore, Junior and Senior) shows that the averages of the upper classes is much higher than those of the lower. The difference of five per cent between Seniors and

Freshmen is due to the new system of averaging introduced two years ago.

Grades, in the new system, are averaged according to the number of credit hours listed in the catalog. In former practice, no distinction was made between classes; all grades were averaged together in a lump sum.

Physical training grades are not included in the averages, a credit (Cr) being given instead for satisfactory work completed. Those coming from other schools are given a credit (Cr) of "C" for their work.

The average of the entire school body, a total of 790 students, is 85.64 per cent. The averages of the various organizations are as follows:

	Per Cent
The Senior Class.....	88.0
The Junior Class.....	87.1
The Sophomore Class.....	84.4
The Freshman Class.....	83.7

The student with the highest average in the Senior Class is Marvin A. Tennyson. His average is 94.9 per cent.

The student with the highest average in the Junior Class is Alvin B. Auerbach. His average is 97.5 per cent.

The student with the highest average in the Sophomore Class is Max J. Schinke. His average is 96.4 per cent.

The student with the highest average in the Freshman Class is James W. Juvinall. His average is 97.0 per cent.

Departments	Per Cent
Chemical Engineering.....	87.1
Fire Protection Engineering...	86.7
Mechanical Engineering.....	86.1
Electrical Engineering.....	85.6
Civil Engineering.....	85.1
Architectural.....	84.0

The following groups are arranged according to the seniority of their establishment at the Armour Institute of Technology.

The Honorary Fraternities (Scholastic)	Per Cent
Tau Beta Pi.....	93.2
Pi Tau Sigma.....	92.7
Salamander.....	92.6
Chi Epsilon.....	92.3
Phi Lambda Upsilon.....	91.9
Eta Kappa Nu.....	91.7
Pi Nu Epsilon.....	88.6

Honor Society	Per Cent
Sphinx.....	89.8

Professional Fraternities	Per Cent
Flask and Beaker.....	89.0
Scarab.....	88.8

Social Fraternities	Per Cent
Sigma Kappa Delta.....	87.8
Beta Psi.....	87.7
Triangle.....	87.5
Kappa Delta Tau.....	86.3
Sigma Alpha Mu.....	86.3
Phi Kappa Sigma.....	85.9
Rho Delta Rho.....	85.7
Theta Xi.....	85.6
Phi Pi Phi.....	85.0
Delta Tau Delta.....	83.5

The average of all students belonging to the Phi Kappa Sigma, Delta Tau Delta, Theta Xi, Sigma Kappa Delta, Phi Pi Phi, Triangle and Beta Psi fraternities (fraternities that rent or own their own chapter houses) is 86.05 per cent.

The average of all other students is 85.47 per cent.

In the above the following numerical values were given to the letter grades:

A equals 97.5 per cent; B equals 90.0 per cent; C equals 80.0 per cent; D equals 67.5 per cent; E equals 50.0 per cent; Cr. equals 80.0 per cent.

## Armour Engineer Will Make Appearance Soon

The "Armour Engineer" will make its initial appearance of the current school year on Wednesday, November 19.

According to A. J. Lenke, the editor, this issue will include several interesting and instructive articles both of a technical and non-technical nature. C. Link's article on the Power Industry is the feature student presentation. Dr. Scherger presents a very interesting discussion of some interesting places he has visited in his travels through Europe, and the Deans, Penn and Palmer, describe just what the aims of an engineering student should be. The prize paper of last year's Freshman Chemical Essay contest also appears in this issue.

The "Engineer," cover and contents, maintains that high standard that has won for itself prizes and praise in the past. It will be distributed two weeks from tomorrow.

## General Foreman to Address Assembly

Major General M. J. Foreman will speak at a general assembly to be held on Tuesday, November 11, at 10:30. General Foreman is a past national commander of the American Legion, and at the present time is connected with the firm of Foreman, Bluford, Krinsley, and Schultz.

## Aeronautics Topic at Next W. S. E. Meeting

Friday, Nov. 7, Mr. K. A. Kennedy of the Boeing School of Aeronautics will address the Armour Branch of the W. S. E. Mr. Kennedy is making a tour of all the American colleges, discussing the life and training of a pilot. He will accompany his talk with moving pictures. His discussion will be of great interest to civil engineering students, especially those who wish to make aeronautics their life work.

Mr. Kennedy is a high authority in the field of aviation and it was only through the quick action of the W. S. E. officers that Mr. Kennedy was able to be secured, as his time is limited. No hour has been set for the meeting, but notice of the time and place will be put up on the bulletin board.

## Junior Chemicals Ask for Basketball Games

The Junior Chemicals have formed a basketball team and wish to play with any similar group, club, or what have you. They have already defeated a team composed of Sophomores in the chemical department. Any team desiring games may obtain further information from E. Field, R. Blom, or S. Lind.

# Armour Tech News

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## THE ENGINEERING WORLD

It is a most curious thing to realize that the engineers of the country might be said to live in their own world, set apart from that of the ordinary folk. Yet it can be proven easily; take any of the great engineering features, and then try to name the engineer whose work it is.

The people of today seem to take the work of the engineer as something more or less matter of fact. If the work is sufficiently large enough in size, it may draw a comment from them, but otherwise they are merely content to reap the benefits without ever thinking of what lies behind it. The engineer is truly a hidden feature; he does his work, silently and efficiently, and then slinks off to the next project without the public's even knowing of him.

However, in his own little world, all is different. Warm relationships exist between the men of the profession, and one merely has to attend a technical gathering to note the enthusiasm with which they greet one another, and the interest that they have in the work of one another. Men become personages, not names, and the projects merely serve as examples of some man's ability and ingenuity.

Because of this attitude of the public toward the engineer, we feel that the various organizations which tend to bind them together serve a purpose that no one should miss. They furnish that intangible feeling of interest without which all the work seems a drudge, and with it all work becomes a satisfying fight against obstacles.

We humans are all susceptible to praise, and there are few men who do not enjoy seeing their name in the "News," no matter how trivial the deed. After graduation, there will be no "News" to hold up your accomplishments for others to see; and unless we belong to some group of engineers, work will seem merely a sordid money grubbing affair.

We urge every man to become interested in his departmental organization now, for the habits formed there will prove of advantage if one later joins the parent organization; the experience, useful; and the affiliation, enjoyable. A. B. A.

Without your knowledge, the eyes and ears of many will see and watch you, as they have done already. Cicero

## "The Slipstick"

Cleave to "The Slipstick"; let the Slapstick fly where it may.

### THE SALT IN THE SHAKER

Pleasing my palate with simple delight,  
So crystalline, gentle, and spotless white.  
If only you'd pour, you'd be all right,  
But stubbornly you mock my greatest might.

(Sign) "No smoking in this submarine for divers reasons."

### Believe It or Not

They were in the faculty club swapping 'em: Says One: "When I was camping in the north woods I saw a mountain lion come right up to the tent. It was a ferocious beast, but I, with great presence of mind, threw a bucket of water in its face and it slunk away."

Prof. (sitting in corner): "Boys, I can vouch for that story. Why just a few minutes after that happened I was coming down the side of the hill and met this lion. My habit of stopping to pet his whiskers prompted me to do the same and—Boy!—were those whiskers wet." —Sliv.

The fact that PV equals RT is explained by one of our chemistry professors. His explanation is that the Pressure on the Vest is equal to the Rotundity of the Tummy. —Little Rennie's Notebook.

### House of Correction

"What dey do to dat Jones boy fo' sellin' dat booze, Aunt Liza?"

"What dey do? Lawd, chile, dey done gib him two years on hard labor in de house of representatives."

### How to live to be a 100 years old:

- Don't ride in an auto.
  - Don't eat candy.
  - Don't smoke.
  - Don't go out with the opposite sex.
  - Gargle when you hear someone cough.
  - Don't drink.
  - Don't indulge in any form of entertainment.
- P. S.—If you don't live to be a 100 years old, it'll seem that long.

It must make a policeman terribly mad to wear a bullet-proof vest and then get hit somewhere else.

### Bridge Engineer's Office

"What keeps the moon from falling?" —Sliv.  
"It must be the beams."

Landlady: "Why have you put your tea on a chair?"  
Boarder: "It was so weak that I thought it had better sit down."

### New Popular Song

Voice Over Phone: "How much is coal now?"  
Dealer: "Eighteen-ninety a ton."  
V. O. P.: "Ha-ha! I gotta oil burner."

Customer—"That chicken I bought yesterday had no wishbone."  
Clerk—"He was a very happy and contented bird and had nothing to wish for."

### No Trespassers Allowed

One of the wings of the plane had broken and its pilot, after crashing through a mass of planking and plaster, found himself resting on a concrete surface in utter darkness.

"Where am I?" he asked feebly.  
"You're in my cellar," came an ominous voice out of the blackness, "but I'm watching you." —Al.

Gladys (to fat boy friend): "Pardon me, Tiny, but as you grow old will you fade like a flower or bust like a balloon?"

Stout Theatrical Person (engaging room): "Window's a bit small. Wouldn't do much good in case of an emergency."

Landlady: "There ain't a goin' to be any sich emergencies. My terms is weekly in advance fer actors."

"I'm certainly put out about this," warned the stude as the prof deposited him outside the classroom.

- A—"Playing golf every day keeps me fit."
- B—"Fit for what?"
- C—"Fit to play more golf."

"Calculus," says Little Rennie's Notebook, "is the science of the ghosts of departed quantities."

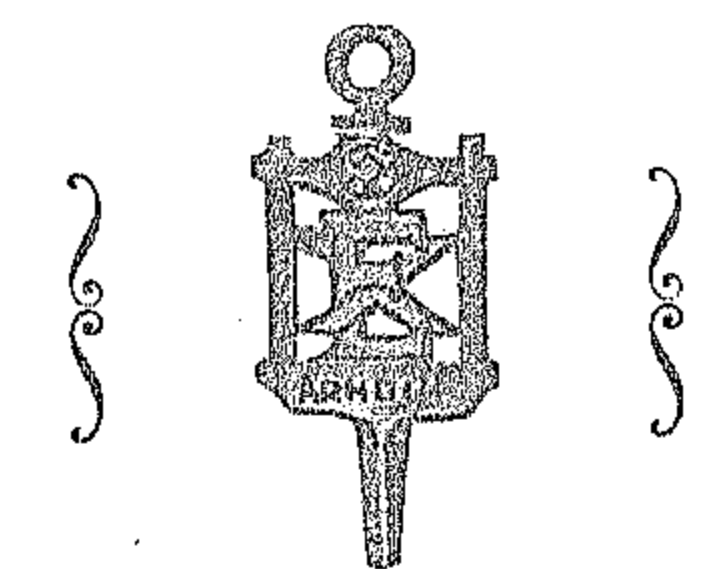
### THE RADIO BUG

"Do you carry B-eliminators?"  
"No, sir, but we have roach powder and fly swatters."

Cheer up, gang, only one minute and 1,785,540 seconds of school left this semester. —Phil J.

## CHI EPSILON

Honorary Civil Engineering Fraternity



Chi Epsilon, national honorary Civil Engineering fraternity, was founded at the University of Illinois on May 20, 1922. About the same time, the Junior and Senior Civils at Armour decided that they should have an honorary fraternity whose membership was open only to students in the civil engineering department. The reason for this was twofold: first, because of the limited scope of the national honorary engineering fraternity, only the accomplishments of a few could be recognized; secondly, the electricals had their Eta Kappa Nu and the mechanicals their Pi Tau Sigma, but when the Civils had reached their Junior or Senior year there was no fraternity to recognize their achievements as student engineers. To remedy this situation they set about to find out if any honorary Civil Engineering fraternity had been established at any other school. It was then discovered that Chi Epsilon had been founded and a petition for the establishment of a chapter at Armour was sent to the Illinois chapter. The petition was granted and the Armour chapter was installed March 9, 1923. Professor Phillips, head of the Civil Engineering department, was an honorary charter member, and it was largely through his efforts that

the Armour chapter was established. The fraternity has a membership of about one thousand, including honorary members.

### Aims of Fraternity

The purpose of the fraternity is to place a mark of distinction on the undergraduate who has upheld the honor of the department of Civil Engineering by high scholastic ability, and to provide an incentive for greater achievements in the Civil Engineering profession. Election to membership is based on the four requirements of a successful engineer; scholarship, character, practicality and sociability. The candidate for membership must have maintained an average grade in scholarship in the upper one-third of his class, and must be a junior or senior in regular standing in the civil engineering department. Scholarship is merely one of the requisites for membership and more emphasis is placed on the other requirements in the election of members.

The "Transit," the official publication of the fraternity, is published twice annually. It contains articles on such widely varying subjects as "Notes on a Trip Around the World," and "The Design of Welded Connections." It also contains news of the various chapters.

A conclave is held every two years at which time the officers of the Supreme Council are elected, and the future policies of the fraternity determined.

### Membership

A few of the well known honorary members other than those at Armour are: Professor C. B. Reed, whose name is synonymous with the surveying courses at Armour as he is co-author with G. L. Hosmer of the text-book "The Principles and Practice of Surveying," and an associate editor of both the American Civil Engineers' Handbook and the

## Electric Train Run Without Aid of Crew

Electric trains without crews—in fact, with no human being aboard—will soon haul rock for cement making from quarry to crusher at a Dallas, Texas, plant. When the cars have been loaded, they will appear to start of their own accord for the crusher. At their destination the motors cease humming, brakes go on automatically, and the train stops.

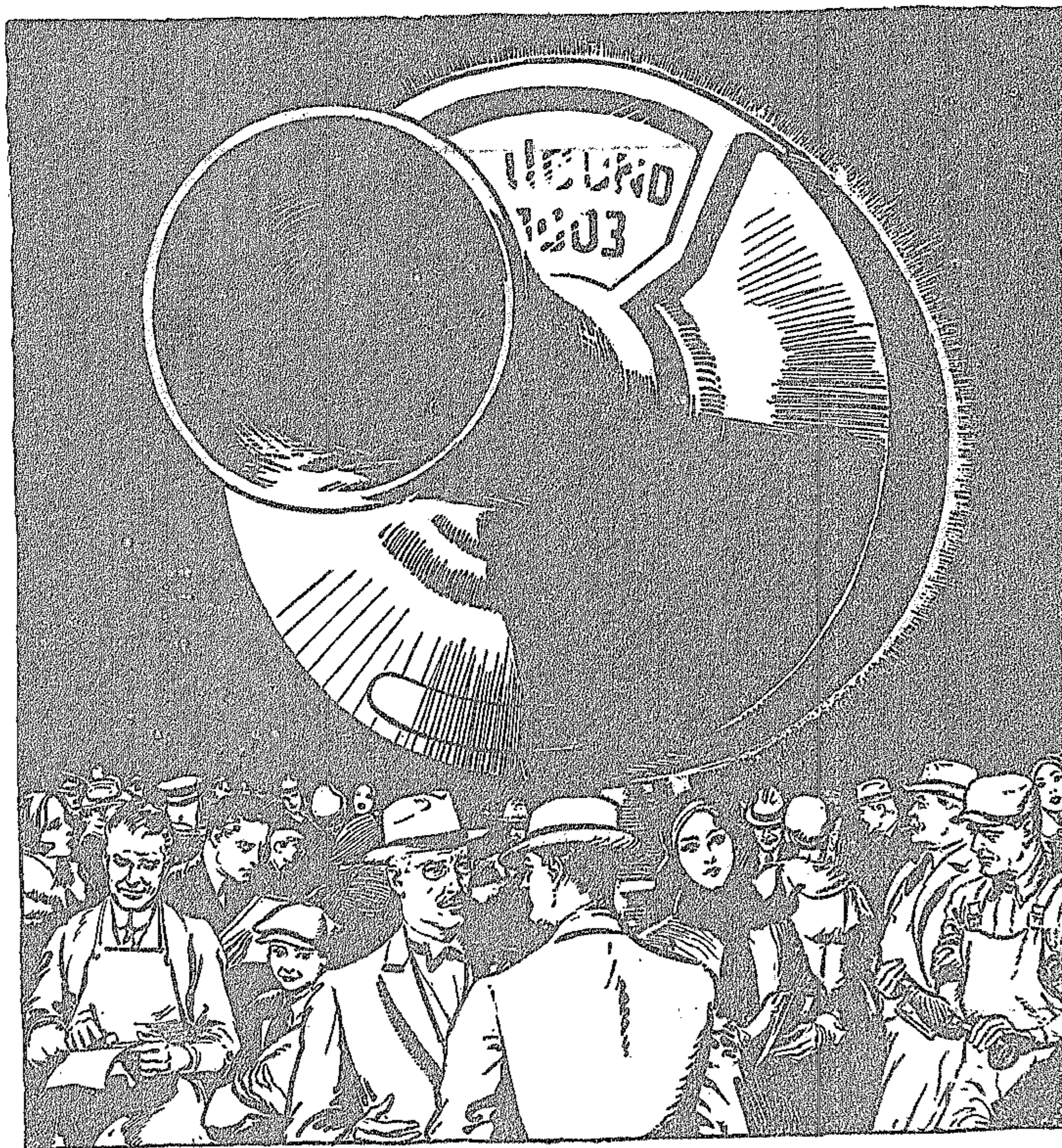
Just like toy-electric trains, these industrial strings of cars are controlled from a distance. Two operators, one of them placed where he can see the loading of the cars and another at the receiving end, control their movement by electric switches. General Electric Company engineers worked out a "remote control" system in which any section of track may be electrified; by turning the current into all of them the train is made to run from one end to the other.

Running downhill, the driveless train does not speed up. The motors of the cars automatically turn into generators and feed electric current back into the third rail, helping to drive the other cars.

American Mining Engineers' Handbook; Dean M. S. Ketchum of the University of Illinois, who is author of the "Structural Engineers' Handbook" and "Steel Mill Buildings;" Ralph Modjeski, one of the foremost bridge builders in the world; and M. B. Reynolds, assistant city engineer of the City of Chicago.

The honorary members of the Armour Chapter are: Professor A. E. Phillips, J. C. Penn, M. B. Wells, R. L. Stevens, P. C. Huntly, and H. T. Heald. The active members are L. H. Dicke, K. E. W. Helsen, E. A. Johnson, B. S. Lindquist, G. G. McLaughlin, and C. J. Robin.

## STEPPING INTO A MODERN WORLD



## It looms up large in their lives

The telephone has a big place in the daily lives of most people today, but its place will be even bigger tomorrow.

Its importance has been fostered by the work of men in all phases of the telephone business and no little part has been taken by those engaged in selling. They have helped to effect an increase of more than three and a half mil-

lion Bell telephones in the last five years. In the same period they have been instrumental in making the public realize more completely the telephone's usefulness. Result: an increase from 49,000,000 calls per day to 65,000,000.

For men with a leaning toward sales promotion, the opportunity is there!

## BELL SYSTEM



A NATION-WIDE SYSTEM OF INTER-CONNECTING TELEPHONES

**List Statistics on Registration**

This semester, that is the semester that began in September, 1930, a total of 257 men were admitted to the Institute as Freshmen. These men came from ten different states and two different countries. The men and the localities from which they come are listed below:

Chicago	190
Illinois	49
Wisconsin	5
Indiana	3
Montana	2
Idaho	1
Iowa	1
Nebraska	1
Florida	1
North Carolina	1
New Jersey	1
Canada	1
Argentina	1

Total ..... 257

Of the 190 freshmen that came from the city of Chicago, 180 attended high schools in this city and ten did not. A list of those who attended high school in Chicago is given below:

Austin	10
Bowen	5
Calumet	4
Crane	19
Englewood	3
Fenger	2
Harrison	5
Hyde Park	3
Lake View	6
Lane	27
Lindblom	12
Marshall	2
Morgan Park	2
Parker	5
Roosevelt	1
Schurz	6
Senn	14
Tilden	26
Tuley	1
Waller	1

**Radio Device Checks Upon Station Waves**

A new "radio yardstick" installed at the United States Bureau of Standards, at Washington, D. C., keeps tabs on the 600 broadcasting stations and thousands of other transmitting stations in the United States. It makes sure that each is broadcasting on the special wave length that has been officially assigned to it. It has an accuracy of one part in a million.

Vibrating quartz crystals, housed under glass covers, are miniature broadcasting stations that emit waves of exceedingly exact frequency. These waves are taken as standard and compared electrically with those of commercial broadcasting stations. Any discrepancy between the two produces a whistle, and the musical pitch of the whistle is an exact measure of the amount by which the station is off its proper wave length. In order to keep the quartz crystals at a constant temperature, ensuring their accuracy, they are housed in a heat-insulated chamber resembling an ice box.

**First Floating Power Ship in New England**

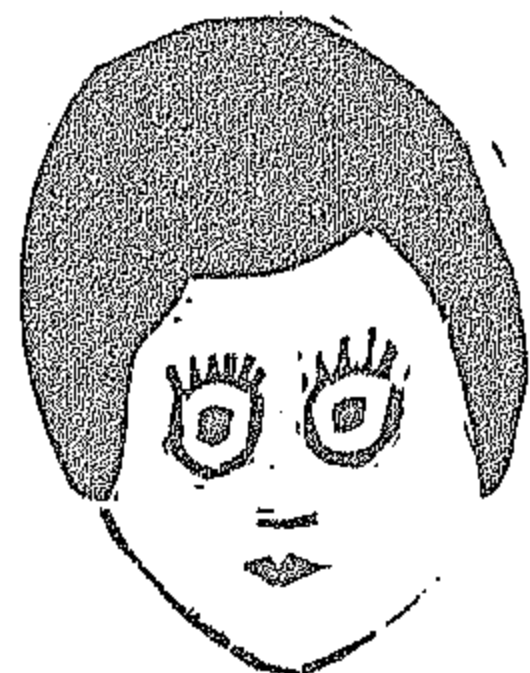
Soon New England is to have the first regular floating power station. The New England Public Service Company has just purchased the obsolete cargo ship *Jacona* from the United States Shipping Board. Modern steam turbines and generators are to be installed so the ship can generate electric power for cities situated on the coasts of Maine and New Hampshire.

Not long ago the plan of supplying power from a ship was shown to be practical. When shortage of water for hydroelectric power threatened to shut down factories in Tacoma, Wash., the United States Navy's airplane carrier *Lexington* went to the rescue. Electric cables were laid from the ship to the shore, and for thirty days the *Lexington's* 180,000-horsepower generators fed power into the city wires.

Two Texans are holding a rather novel race to New York; one is riding a large black bull, and the other is driving a goat and a jack-ass. The bull is favored.

**COMING! COMING! COMING!**

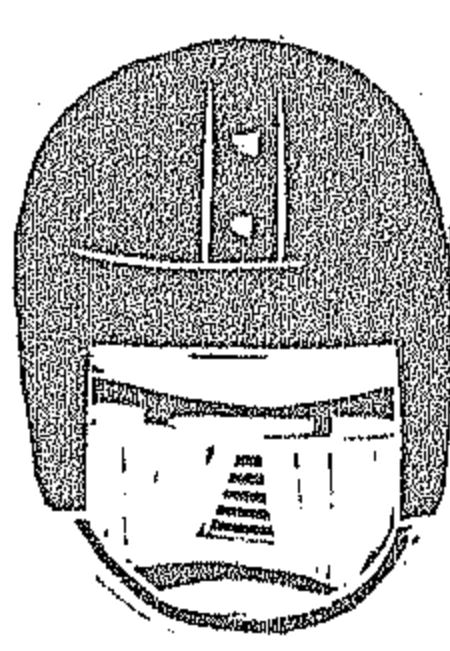
"LOVE CONQUERS ALL" or "THE PI DELT'S REVENGE." A dashing, daring, stupendous revelation of college life! SEE! HEAR! Watch this gripping drama unfold before your very eyes the evils and pitfalls of the modern college.



The Coeds!



The Wicked Parties.



The Campus Heroes.

ALL at NO EXTRA COST! In this paper, next week, and every week thereafter!

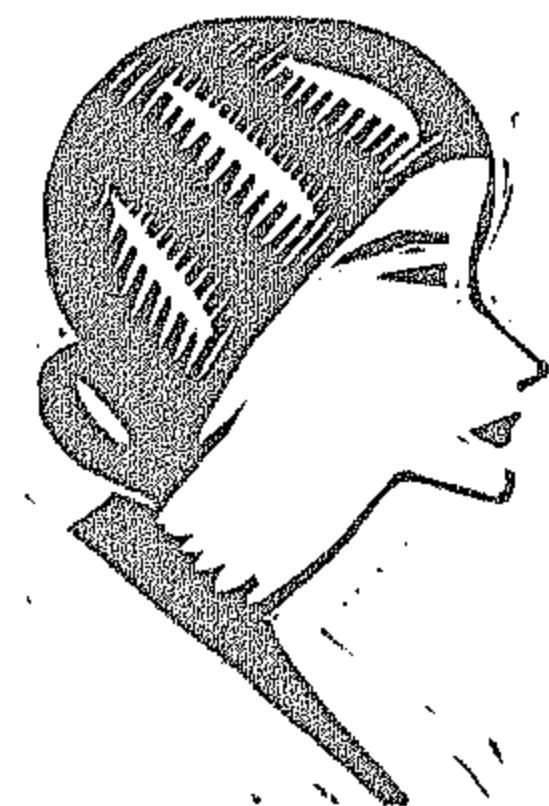
Played by the greatest galaxy of stars ever assembled under one roof!



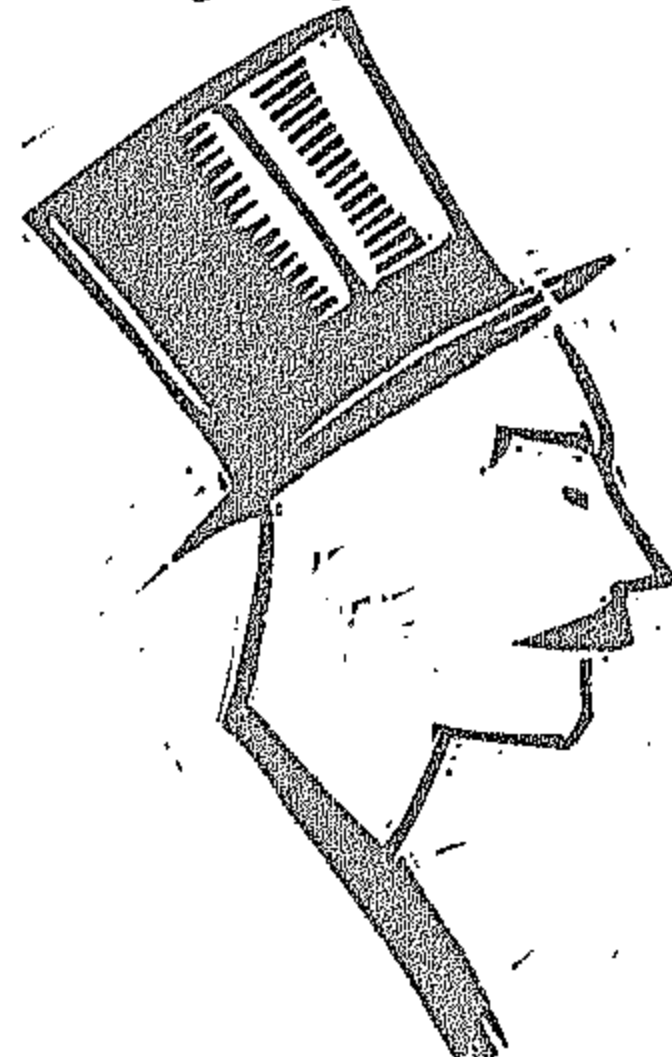
Susan Sweet, darling of the R. O. T. C., played by Miss Florie Waldorf.



Danny Dare, hero of the campus, played by Paul Muligatway.



Sonia O'Toole, cold, heartless vampire, despair of the Deans and Freshmen, played by Delores Ala Newburg.



Gordon Throckmorton-Saunders, rich wastrel, playboy and trifter, played by John Marmyore.

Scenario and Direction by Dave Chapman  
Continuity and Casting by Dave Chapman

"The management earnestly requests ladies to remove their hats. Look around you for the nearest exit. In case of emergency, run, don't walk, to that door."

**Next Week!**

Reserve your copy now so as to not have to rely on the "Keep the City Clean" boxes!

Act I

**"Love Conquers All"**

Scene I

**J. Schommer Rescues Struggling Chemical**

Arthur Viel, Ch.E. '32, owes the presence of the hairy growth on his countenance to the kind-heartedness of "Jawn" Schommer. A group of Chemicals and Fire Protects waylaid said Mr. Viel and proceeded to stretch him out despite his vigorous physical protestations. The razor was just about to be applied to the treasured possession when John Schommer entered the picture. Visions of E's next February caused the students to scatter and allow the offended Junior to continue his marches around the Bacteriology Lab. Rumor hath it that said Mr. Viel will either remove offending disguise or become the object of much concern for a while. Blessed be John, says Viel.

**Disease Germs Killed By Electric Bullets**

Disease germs may be killed in the future by tiny bullets from electric guns, instead of being poisoned by antiseptics as at present. In a study made at the University of Cincinnati, Dr. D. A. Wells was able to destroy numbers of the germ *Staphylococcus albus*, one of the most virulent germs known and the usual cause of boils, by bombarding them with electronic bullets in a vacuum tube. An electric pressure of only thirty volts was needed to produce the effect. A battery of twenty dry cells could give this current. When the electric voltage was raised, the additional energy substantially increased the slaughter of the germs.

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**Arx News**

We were sorry to learn of the recent illness of Mrs. Sanders of the Burnham Library, of the Art Institute, and wish to assure her that she was missed very much. We are hoping for a very early return.

It is expected that the Paris Prize drawings of 1930 will be on exhibition at the Burnham Library this week or soon thereafter.

B. D. Anderson, or more informally, "Andy", treated a small group Professor Hammett, Mr. and Mrs. Dutt, Edward Prevar, '32 and Earl Kubicek, '32, to a movie travelogue of his own at his home on Tuesday evening, October 28th. It consisted of his travels in Europe and views taken on a trip through Yellowstone National Park.

One of the suggested projects at the World's Fair of 1933 is a restaurant in the air or rather three restaurants in the air, each one to be built above the other on a common stem. Each is to be a half circle in shape and they are to revolve. The time for each revolution is to be one hour. Service to the restaurants is to be through the stem. The exclusiveness of the dining palaces will be graduated according to their heights. The highest will be the most expensive. The idea of the revolving is that the diner may, at the beginning of his meal be facing the city and watch the lake while he is drinking his coffee.

The forty-third American Exhibition of art work is now open in the galleries of the Art Institute. Among all the work on display there is not one cubist picture.  
E.C.K.

**VERSE OR WORSE**  
F. F. Strassenburg

**The Frame of Chance**

He had a little picture frame  
Upon his dresser top.  
Each time I'd come another dame  
Would occupy the spot.

The frame was pretty, eight by ten  
I believe that was the size,  
Yet I would like to know the time  
I'd see the same face twice.

The thing just seemed to symbolize  
His very frame of mind:  
A passing fancy that he prized  
Each new flame he did find.

But mark my word, I'll make a bet  
That on some future day  
I'll see the one girl in there yet  
That he'll put there to stay.

A teacher once gave as an exam question "Give for any year the number of bales of cotton exported from the United States." A bright answer from a bright (or near bright) boy was "1491-None."

**Ralphs Barber Shop**  
117 E. 35th Street  
Prompt, Courteous Service  
NO WAITING

**THE BOULEVARD CAFETERIA**  
31st Street and Mich. Ave.  
Dining and Dancing from 3 P. M. to Midnight  
No Cover Charge

**A New High Voltage Control Is Invented**

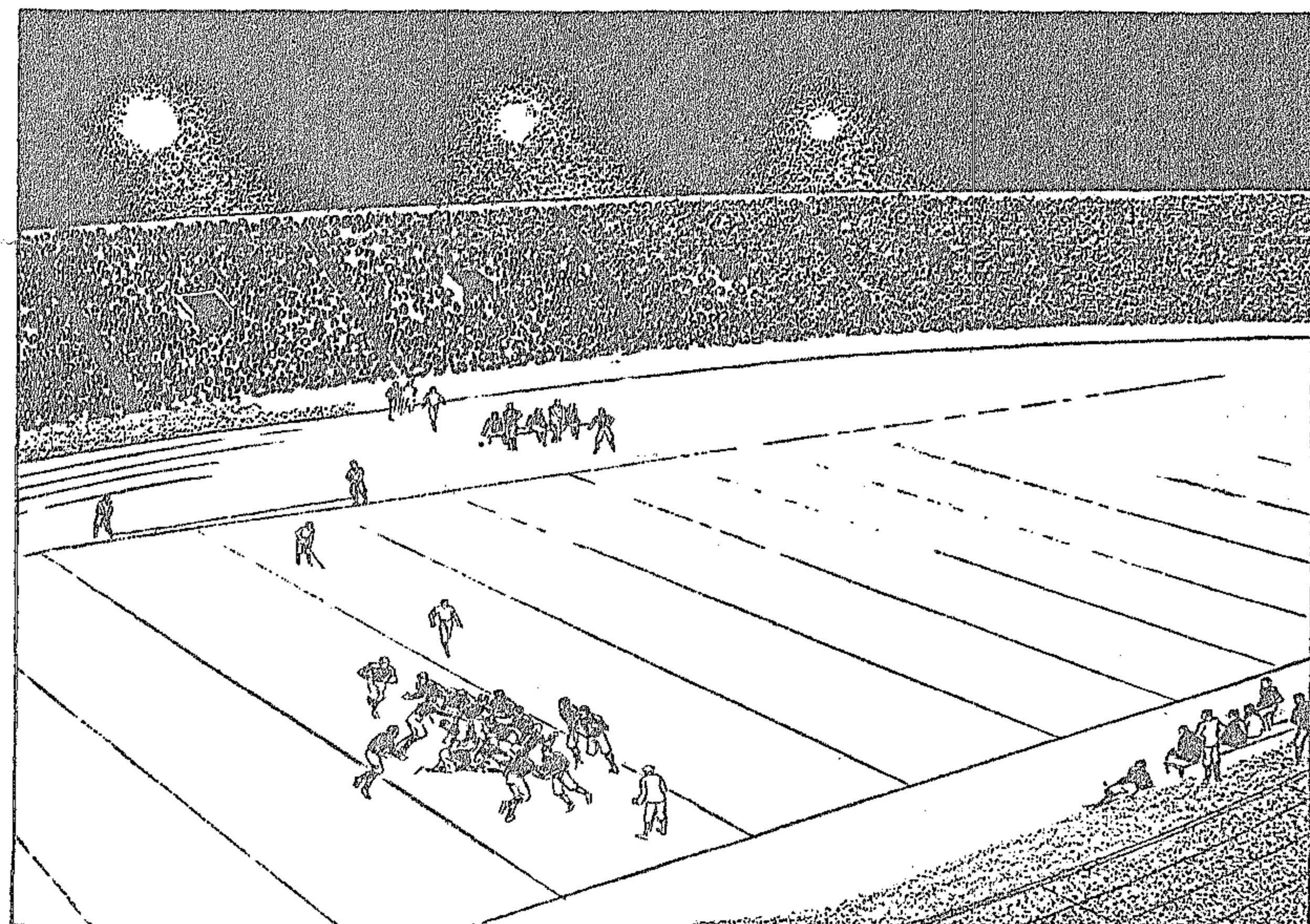
A new type of switch for controlling currents up to 600,000 volts, invented in Germany, is said to prevent dangerous sparks when the switch cuts off the current. Switches now in use for high voltages are cumbersome giants immersed in a tank of insulating oil to prevent the flashes. The charred oil must be changed often. The new switch, produced by the German electrical works of Siemens-Schukert, is bathed in a liquid the formula of which is still a secret, but which is understood to be far superior to oil as an insulator.

This particular switch was developed by Dr. R. A. Millikan and Professor R. W. Sorenson of the California Institute of Technology, located at Pasadena, to control the millions of volts that are used there in electrical tests. A vacuum so nearly perfect that it contains less than 1/760,000 as much air as an equal space of the outside atmosphere minimizes the flash of the arc when the switch breaks the electrical circuit.

**SALESMAN WANTED**

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Highest Grade Christmas Cards  
Five Different Boxes of Genuine Etchings and Stationery—No Other Line Like Ours. Sells at Sight. Make 40 Percent.

"GEN ETCH" GREETING CARD COMPANY  
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The banks of G-E floodlights at Georgia Tech's Grant Field can be adjusted to illuminate track meets as well as football games.

**G-E Floodlighting Wins Favor for Football - Hockey - Track - Baseball - Tennis**

G-E floodlighting equipment has a winning record. Its victories are counted in terms of pleased spectators, increased attendance, satisfied coaches and players.

The development of G-E athletic-field floodlighting equipment was planned with every consideration for the fundamental and special playing conditions it must meet. That is why the big Novalux projectors give ample and evenly diffused light over the entire playing area.

The development of General Electric floodlighting equipment has largely been the work of college-trained men in the G-E organization—other college-trained men are largely responsible for the continuing leadership of General Electric in furnishing the many other products which bear the G-E monogram.

JOIN US IN THE GENERAL ELECTRIC PROGRAM, BROADCAST EVERY SATURDAY EVENING ON A NATION-WIDE N.B.C. NETWORK

**GENERAL ELECTRIC**

FRESHMEN SWAMP JUNIORS IN TITLE BASKET BALL TILT

Losers Held Powerless By Strong First Year Squad

FINAL COUNT 23-10

The class of '34 for the second time in the present school year is heralded as champion of an inter-class tournament.

The freshmen victory was an impressive one. They held the juniors completely powerless for the first three quarters, scoring 19 points against five by the juniors.

Game Starts Slow

When the game started, things appeared as though little scoring would be done. Both teams played a defensive game, keeping the ball out of the opponent's territory.

Jacobson committed a personal foul on the opening of the second quarter, giving the juniors a free throw. Stalzer placed the ball through the hoop for the one point that the juniors held on their side of the score card for the remainder of that half.

The junior's first field goal was made by MacLennan, who replaced Schmidt in the third quarter. MacLennan's basket seemed to break the jinx that haunted the juniors, for the game thereafter was more closely contested.

Juniors Begin Play

With the score 19-5 at the end of the third quarter, the juniors launched a vicious attack in their attempt to overcome this lead. They formed a better passing and defensive quintet but failed in their marksmanship.

JUNIORS—10

Table with 3 columns: Name, B, Ft, P. Leichtenberg, c 1 0 2; Lind, f 0 0 0; Stalzer, f 0 1 0; Schmidt, g 2 0 2; Carlson, g 0 1 1; MacLennan, g 1 0 0.

FRESHMEN—23

Table with 3 columns: Name, B, Ft, P. Moskowitz, f 3 1 0; Rummel, f 1 0 0; Yuknis, c 2 0 0; Jacobson, g 0 0 1; Henke, g 2 0 1; Christoff, f, c 2 0 1; Goldman, g 1 0 0.

Referee—Robin, Umpire—Miran.

Traveling Salesman Invents Rapid Gun

A traveling salesman turned inventor to design a machine gun of nine-mile range, said to be one of the deadliest weapons ever built.

Too old for the World War, Robert F. Hudson, of Richmond, Va., labored at home on a machine gun. The war ended, his weapon unin-

Pugs Train Hard for Busy Season

A visitor to our gym on any Monday or Friday evening would see about twenty prospective pugs, engaged in bag punching, sparring, shadow boxing, and rope skipping, in preparation for a strenuous season.

As was stated before in a review of the team's possibilities, a building up process will be necessary because of the lack of veterans, who were either lost by graduation or kept out because of studies.

Coach Weisman is endeavoring to bring up professional fighters every week, to instruct the men and perform for them. This is something which has not been attempted before and should prove very instructive.

Manager Cannon is now working out a schedule which will be announced in the near future. Because of the enthusiasm displayed during the first home boxing meet, last year, a special effort is being made to card as many meets at home as possible.

Unlike other athletic mentors, Coach Weisman will not cut the squad, as there are those who merely come out to gain a knowledge of the manly art, and are not gunning for a position on the squad.

A number of the candidates show ability and should develop favorably as the season progresses. The return of Larkin, Armour's star middleweight, will help considerably toward putting our pugs on a winning basis.

Net Tourny Proceeds as Good Weather Stays

All the games which were scheduled for the first round of the annual tennis championship tourney were played last week. A few days of balmy weather probably accounted for the fact that everyone was eager to get on the battle ground to have it out.

The scores to the time of writing were: Graham defeated Nelson—6-3, 3-6, 7-5.

Rowe defeated Colcord—6-3, 9-7. Wiltrakis defeated Knudson—6-2, 6-3.

Richter defeated Bodinson—6-4, 1-6, 6-2.

Curran defeated Kastner—6-0, 6-0.

Draus defeated Fagen—6-4, 4-6, 7-5.

Dase defeated Nelson—6-4, 6-1.

Wierzbowski defeated Stocklin—6-0, 6-0.

Henricks defeated Hammond—6-2, 6-4.

ished. He persevered. The other day he demonstrated to navy officials that it could shoot fifty caliber bullets nine miles, at a 300-a-minute rate. They accepted the gun.

It can be made in other deadly types. One will shoot foot-long shells of 1.1 inch caliber thirteen miles, sensitive projectiles explode on piercing a silk handkerchief 300 feet away. Another type fires 1,400 thirty-caliber bullets at air craft, faster than any other gun made.

INTER-FRATERNITY BASKETEERS SET TO OPEN SEASON

Teams Begin Practice on November 18 in Gym

ANNOUNCE SCHEDULE

Inter-fraternity basketball practice will start on November 18, according to the schedule announced by the manager, R. E. Meagher, of inter-fraternity athletics.

The official practice schedule is as follows:

November 18—Sigma Kappa Delta.

November 19—Rho Delta Rho.

November 20—Theta Xi.

November 21—Triangle.

November 25—Sigma Alpha Mu.

December 2—Phi Kappa Sigma.

December 3—Kappa Delta Tau.

December 4—Beta Psi.

December 9—Phi Pi Phi.

December 10—Delta Tau Delta.

These practices will be held after 4:30 p. m. The manager of the basketball team must secure the basketball from Coach Krafft not later than 12:30 p. m. of the day of practice.

Tournament to consist of two divisions with five teams to a division. Two games will be played each night on Dec. 11, 12, 16, 17. On Dec. 18 the final game will be played.

Games must start by 5:15 p. m. Both teams must be on the floor and ready to start at this time or forfeit the game.

Games will consist of eight-minute quarters with rest period of one minute between quarters. When two games are played on one evening the halves will be alternated in order to run the games off more rapidly.

Referees shall be chosen by the contesting teams before the start of game. Letter men are not eligible to play on the fraternity teams.

The official schedule for first round games is as follows:

December 11—Phi Kappa Sigma vs. Sigma Alpha Mu, Sigma Kappa Delta vs. Kappa Delta Tau.

December 12—Triangle vs. Theta Xi, Delta Tau Delta vs. Phi Pi Phi.

Beta Psi and Rho Delta Rho drew byes for the first round of play.

First Practice for Basketeers Tonight

The basketball season for the year 1930-1931 will officially open tonight when Coach Krafft views the prospects for the team at their first practice in the Armour gym.

The games are already scheduled for this season. The first one is the annual alumni affair which will be on December 9.

The team has very good prospects for the coming year with five regulars back from last year's squad, C. J. Robin, captain, H. C. Rossing, S. A. Ott, F. E. Rutkowski, and W. M. Miran. The practice for the first two weeks will be held in the Armour gym. On November 17th, a cut will be made in the squad, and then they will move to their new quarters in the 8th Regiment Armory gym.

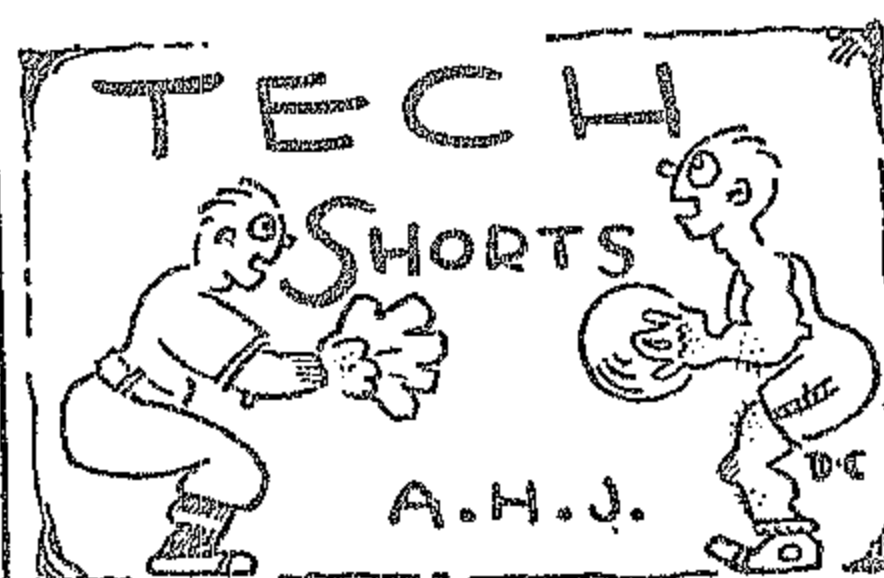
The official schedule of games will be published in the News next week.

Germany Casts Huge Shaft For Japanese

A monster crank shaft, that makes the ordinary automobile variety look like a part for a toy, has recently been made at a steel works in Dortmund, Germany.

Fifty feet long and fifteen tons in weight, it would require a gasoline engine operating a motor car as long as a city block to satisfy its driving capacity, according to the proportionate lengths of the crank shaft and body of an automobile of average size.

The giant shaft is to be built into the hold of a new ocean-going motor ship and then delivered to a customer in Japan.



Experience Helpful

On the basis of lettermen in school, athletics should experience a very successful year. Basketball and boxing are the first of the varsity teams to get into action.

Coach Krafft has five major letter men with which to build an effective attack this season. These men, in the order of varsity experience, are: Harvey Rossing, Clarence Robin, Frank Rutkowski, Stan Ott, and Von Miran. Thus Krafft has a number of men experienced in every position and trained in his style of play.

Those interested are requested to watch the bulletin board for particulars.

Boxing

Last year a new coach was engaged for boxing. Under the direction of this new instructor, Welssman, the squad captured two meets, tied one, and lost two. This is a commendable record considering the time the team has to devote to practice.

Watch Out, Boys

Oh, yes, it might be well for us to mention that the Frosh again were victorious. This time the lowly Freshmen trounced the Juniors in what was supposed to be the championship interclass basketball contest. The game resembled a put and take contest with the Frosh doing all the putting and leaving little for the Juniors to take.

Either tonight or tomorrow the Senior Chemicals are to play the Junior Chemicals in an intradepartment indoor baseball game. Imagine an indoor baseball game in the Tech gym. All are invited to see the game.

An open challenge is extended by Sigma Kappa Delta to a game of touch football on Ogden Field anytime before the snow flies.

Swimmers Prepare for a Complete Turn-Out

Although a formal meeting of the swimming team has not been called, the regulars are gradually rounding into shape.

The announcement of the choice of a manager has been withheld by Mr. Allison's office, because of the earliness of this year's start, but it is practically a certainty that Davidson will be asked to assume this role, as was announced in a previous issue.

The quality of new material still remains a mystery, until the first meeting, which will be called this week.

Because of the return of practically all letter men, the Mermen should register a successful season.

Inasmuch as most of the swimming competition is offered by the Y. M. C. A.'s, it will be endeavored to arrange any out of town trips in conjunction with the boxing team, which also depends on the Y. M. C. A.'s for their competition.

The advisability of this plan was shown by the trip to Culver, Ind., which was made by both squads last year.

The regulars at present are all upper classmen, a situation which is undesirable. A special invitation is therefore issued to the freshmen, who, although their ability may not warrant them a place among the regulars at present, will be experienced enough to fill vacancies, caused by graduation.

Those interested are requested to watch the bulletin board for particulars.

Flying Fire Engines Used in Forest Fires

Flying fire engines are the latest creation in the world of aviation. They will be used in fighting forest fires, according to a report from the Department of Commerce in Canada. The government there has ordered five all metal flying boats. Each will carry two pilots, a mechanic, and seven firemen.

Gridiron Queries

Editor's Note: Professor John J. Schommer, star player, conference umpire, and leading football authority, will answer through this column, any questions on football which are puzzling our readers. Questions may be submitted to the Sports Editor, H. P. Richter, or they may be placed in the Armour Tech News box, which is located in the main building adjacent to the elevator on the first floor.

By Professor John J. Schommer

Question 11. Under what conditions will a coach be permitted to go on the field when the teams are taking a time-out?

Answer—When he is called, due to serious injury to a player.

Question 12. When a team takes time-out due to injury of one of its players, are they compelled to resume action when two minutes expire or will they be allotted more time in case they wait for the player to recover in order that he may participate again?

Answer—Two minutes is all the time allotted. If more time is needed the injured player must be removed from the field and a substitute called for.

Question 13. Is a team permitted to take two time-outs in succession without executing a play between the first and second time-out?

Answer—No.

Question 14. Referee penalizes a team 15 yards for an offense. Players of offending team object and become disorderly. Has the referee right to continue imposing two or three more 15 yard penalties if the team fails to subside?

Answer—He not only has the right to do that but he is authorized to eject player or players from the game, or forfeit the game if his decisions are not adhered to.

Question 15. Quarterback of offensive team advances ball for a long gain. Umpire blows horn before play is completed, claiming that members of both teams were off-sides. What is the referee's ruling in this case?

Answer: Play is played over with the down remaining the same.

Advertisement for Barber Shop at the Motorist's Assn. Club, Thirty-third and Michigan, J. Edelsteen, Mgr.

Advertisement for Student Lunches at The Motorists Cafe, Michigan Ave. at 33rd.

Large advertisement for Chesterfield Cigarettes, featuring the slogan 'One will always stand out' and 'they Satisfy'. Includes an image of a Chesterfield pack and the text 'MILDER and BETTER TASTE'.