

Research uncovers new cement material

By treating dirt like popcorn, ceramics experts at Armour Research Foundation hope to lower the cost of concrete construction while providing lighter, stronger, and better insulated buildings.

Thomas C. Miller, supervisor of masonry materials research at the Foundation, has been investigating clay and shale deposits, heating them until they expand and form materials suitable for mixing with cement. These components, which form 80 per cent or more of the volume of finished concrete, are called "light-weight aggregates."

"In concrete, the aggregate is just as important as the cement which is the binding material," Miller asserted. "The lighter and stronger the aggregate, the better the concrete construction."

Clay which has been expanded—or popped up—into cells full of air, enables builders to use a light, tailor-made aggregate in concrete, Miller pointed out. The new material, which is light enough to float in water, has several points in its favor.

Firstly, there is more flexibility in construction because structural members need not support so much weight. Lighter beams can mean less building cost.

Secondly, the large amount of air in the expanded aggregate will add insulation and improve acoustical properties.

And lastly, the aggregate is not expensive, being manufactured from naturally occurring clay and related materials located near the producing plants.

"Transportation costs tend to decentralize this industry," Miller claimed. He contended that much of the price of some aggregates such as pumice, vermiculite, or perlite, is represented by freight charges and that using materials close at hand could reduce construction costs.

Miller predicted that a plant set up in the Chicago area to manufacture

light-weight aggregate would have a ready market, since concrete construction in and near the city requires 500,000 yards of aggregate annually. Good aggregate at an attractive price should stimulate concrete construction, he said.

Miller has designed an efficient, proposed plant suitable for strategic locations. "The better aggregate the greater the percentage of it we can use in concrete," he pointed out. "This cuts the amount of more expensive cement required. Low-cost, concrete block homes, using light-weight aggregate, offer a wide potential market."

Radio club plans equipment contest

Neatness and practicality of construction are the keystones of a contest that is being sponsored by Illinois Tech's Radio club. Equipment-building contest prizes will include test equipment, reference books and subscriptions to Radio and Television News. Open to members only, the three classes of entries being considered are the novices, the engineering and design class and the advanced class, open to licensed amateurs and advanced experimenters.

Dates of judging and names of the judges will be announced. Prizes and winning equipment will be displayed in the Illinois Tech bookstore through the courtesy of Paul Fox, bookstore manager.

Football

(Continued from page 2)

just "offer to play" big universities. That takes heartaches, begging, years of effort, traditions and financial deals—let's forget about that kind of football at Tech for the present.

Scholastic loads on the players would have to be lightened to permit them to play, but not below the minimum agreed to in any conference or association of colleges we entered. Their minimum work loads are above half-time work load at Tech. Few players would want to make up credit hours in summer school unless repaid in money or free tuition.

With the time required going to and from school, time lost in injuries, time used up working part time through school and with 50 percent of the engineering student body getting "C" grades or lower, it is going to be hard to find students to participate in the sport.

Recapitulating with a view to costs, our team of 60 players minimum will need a half-million dollars to get it on the field, and more to keep it there. If the students and alumni of Illinois Tech think this kind of money can be secured and is considered a worthwhile expenditure for 60 players, I encourage them to go ahead and devise plans for having a football team. More astounding miracles than football at Illinois Tech have been performed.

John J. Schommer

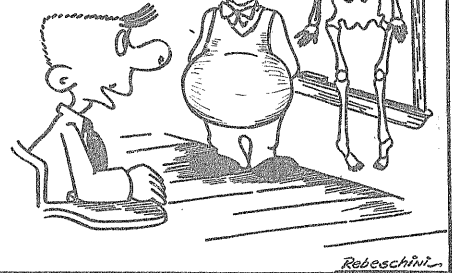
RUN YOUR CANDIDATE!
Take an active interest in your class affairs by nominating your candidates for office. Petitions are available in the South Union.

'Topper' ghosts top SAM film after vacation

Adhering to its new policy of "Four shows weekly," the SAM Film Program has announced films scheduled for the remainder of the semester. Free of admission charge, the two-hour program will now be seen on Wednesdays at 2 and 4 p.m. and Thursday evenings at 6 and 8. All showings are in 131MC.

"Topper Takes a Trip"—listed for January 4-5—stars Roland Young, Constance Bennett, and Billie Burke in Thorne Smith's farcical tale. "Delightful nonsense, using trick photography to mix the visible and invisible characters, this film is expertly played," reports Wally Conniff. Accompanying the feature will be "Lest We Forget," amusing vignette of the quaint old days, concerned with development of horseless carriages.

IN HUMAN BIOLOGY,
WE FREQUENTLY
RUN INTO CASES
OF EXTREMES



Pledging period completed, honoraries count initiates

With the completion of initiation ceremonies of Pi Delta Epsilon Wednesday, all the honoraries on IIT's campus ended their respective pledging activities for the semester.

It was found that approximately 7.5% of the student body was initiated into honorary societies this semester. The largest group of the 262 men initiated into the 14 active honoraries went to Tau Beta Pi, engineering honorary, which collected 76 men.

A breakdown of the number of undergraduate men received into the societies follows:

Pi Tau Sigma—mechanical engineering honorary—36
Eta Kappa Nu—electrical engineering honorary—31
Phi Lambda Upsilon—chemistry and chemical engineering honorary—27
Sigma Iota Epsilon—management honorary—17
Pi Delta Epsilon—journalism honorary—15
Phi Eta Sigma—freshman honorary—15
Pi Nu Epsilon—music honorary—10
Chi Epsilon—civil engineering honorary—9
Rho Epsilon—radio engineering honorary—9
Honor I—athletic honorary—8
Tau Omega—aviation honorary—5
Salamander—fire protection engineering honorary—1
Sigma Pi Sigma—physics honorary—none

Some readers were in doubt as to who was responsible for the Honors assembly last week. We wish to emphasize that the Inter-honorary council, of which Joseph J. Pope is president, was in charge. Dean of Liberal studies John D. Larkin was instrumental in obtaining the featured speaker, Dr. Ralph Bunche.

Techmen staging comeback soon

"They're leaving now, but they'll be back." Such was the confident prediction of a faculty observer as Techawks this week deserted IIT for the holidays.

All modes of transportation were pressed into use. One junior EE from Elgin, Nebraska, was heard explaining his plans: "I'm taking CTA downtown, a bus to the airport; then I'm skycoaching to Omaha, where I'll change to a train for Elgin, where I'll switch to Calvert."

Some students determinedly pledged attention to schoolbooks during the Yule freedom period. Among these were Technology News staff members, all reportedly 12 weeks behind in homework assignments. Trudging off with bulging briefcases, they unselfishly chorused:

'Merry Christmas'

The SILVER and GOLD

AN INDEPENDENT NEWSPAPER

Official Publication of the Associated Students of the University at Chicago

One Week Yearly Price: \$1.00 (Single Copies: 10¢) Second Class Postage Paid at Chicago, Ill.

Here We Go Again ...

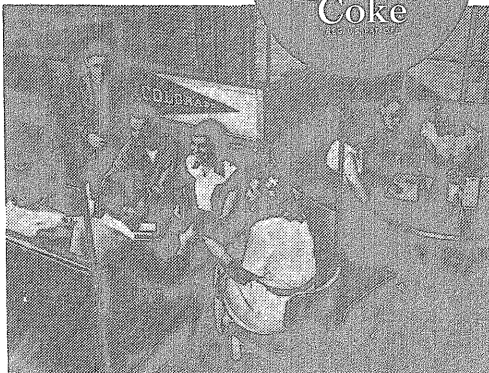
Editors, Business Managers
Selected For

Meeting the gang to discuss a quiz—a date with the campus queen—or just killing time between classes—Owen's Sandwich Shop at the University of Colorado in Boulder is one of the favorite places for a rendezvous. At the Owen's Sandwich Shop, as in college off-campus haunts everywhere, a frosty bottle of Coca-Cola is always on hand for the pause that refreshes—Coke belongs.

Ask for it either way... both trade-marks mean the same thing.

5¢

Coca-Cola
"Coke"



Owen's Sandwich Shop, Boulder, Col.

BOTTLED UNDER AUTHORITY OF THE COCA-COLA COMPANY BY

COCA-COLA BOTTLING CO., OF CHICAGO, INC.

© 1949, The Coca-Cola Company



ROY'S TAP
FRANKIE'S
GRILL

OPEN TILL
— 2 a. m. —

TAP & GRILL

- Beverages of Every Description.
- Finest of Luncheons Served Daily.
- Frank's Special—Chicken and Ribs—Friday and Saturday Nights 'Till 2 a.m.

Merry Christmas to All
The Boys from Roy & Frank

33rd and PRINCETON