Armour Tech News

Vol. XVIII. No. 1. Armour Institute of Technology, Chicago, Illinois Tuesday, September 22, 1936

THREE RESEARCH ENTERPRISES NOW BEING CONDUCTED

Domestic Stokers, Coal, and Oil Are Being Investigated

HEADED BY T. POULTER

With three extensive research projects already under way, Dr. Thomas C. Poulter, senior scientist of the Second Byrd Antarctic Expedition, assumed charge of the Research Foundation of Armour Institute. Appointed this month as director of the Research Foundation by Dr. Willard E. Hotchkiss, president of the Foundation, Dr. Poulter's term as director began the fifteenth of this month. Many new activities of a research and experimental nature are being anticipated by the Research Foundation for the coming year to add to the projects that have been studied since the Foundation's inception last April.

Conduct Oil Research

First of the three projects to be organized is the Universal Oil Products Company Research Project. In a laboratory on the fourth floor of the main building, experiments on making gasoline and other oil products are being conducted by Dr. V. Komarewsky, director of the project.

The principal object of the work will be to discover catalytic agents which will aid reactions in cracking crude oil to make gasoline. In addition, experiments are being made on

(*Continued on page* 5)

W. C. Krafft Resigns as Coach at Armour

William C. Krafft, coach of basketball and baseball, has recently resigned, according to an announcement of the Armour Board of Trustees. Mr. Krafft, who has been at Armour for fifteen years and had charge of the gym classes, plans to devote more time to his insurance business now. His successor or successors have not yet been named, but several names are under consideration.

Ensz Returns From Studies at Harvard

Mr. Herbert Ensz, professor in the department of civil engineering, returned last week from a seven months' stay at Harvard University. Having secured a scholarship through the efforts of Dean Heald, Professor Ensz studied the subject of soil mechanics with some of the most eminent men in this comparatively new field. Under the direction of Professor Terzaghi often called the "father of modern soil mechanics", investigations were made on soils to determine their physical properties.

While at Harvard, Profesor Ensz attended the International Conference on Soil Mechanics and Foundations held in the latter part of June. He praised highly the proceedings of the conference, and recommends the volumes to any students interested in soil mechanics.

The science has been growing for the past 12 years and has served to predetermine safe methods of ground support, to design foundations whose stability must be assured against settlement, and to show how earth dams can be safeguarded from percolation and subsidence. All theories are considered tentative, and have been taught with this viewpoint.

It has been found that no formulas which are applied to steel and concrete can be used in attempting to prescribe building, settlement, or piping in dams. Soil mechanics, however, is actually put to work in these projects. According to Professor Ensz, "Already construction amounting to several hundred million dollars is being controlled by knowledge derived from the new science."

Professor Ensz left Armour on February 1, 1936, and had the privilege of devoting the summer to laboratory work at Harvard.

Pick Group Leaders to Advise Freshmen

As has been the custom in past years, the incoming freshmen will be divided into groups for the purpose of being enlightened on school customs and activities by junior and senior group leaders. These group leaders have been chosen and are scheduled to meet in Dean Heald's office this afternoon.

These group leaders answer any questions which the freshman can think of, and explain the sophomore-freshman relations, fraternity rushing, participation in athletics, and all school affairs.

The men selected are: H. J. Bodnar, D. N. Brissman, W. A. Chapin, W. J. Chelgren, C. W. Dunbar, E. A. Heike, P. M. Martin, S. M. Miner, F. X. Popper, A. H. Ramp, P. R. Schultz, and J. D. Sheehan.

ARMOUR TO HAVE LARGE FACULTY FOR COMING YEAR

Twelve new men will bolster the faculty during the coming school year with the greatest change in the architectural department. Increased enrollment due to the co-op students and to the regular day school students, and a desire to decrease the teaching load have brought about many of these changes.

Mr. Louis Skidmore, Chicago architect and chief of design of a Century of Progress, succeeds Mr. E. H. Reed as director of the department of architecture. Mr. Reed has resigned in order to devote all his time to his architectural practice. Mr. J. Loebl, a graduate of Armour in 1921 and a member of the Advisory Committee of Architects will assist Mr. Skidmore in administering the department.

Senior critic, Mr. C. G. Beersman and Mr. E. A. Merrill, instructor in architectural construction, have resigned their positions in the architectural department to devote full time to professional practice. Mr. S. H. Harper, a graduate of Massachusetts Institute of Technology and employed in the office of the state architect will be an instructor in architectural construction.

Professor John E. Snow of the electrical engineering department, who became a member of the faculty of Armour Institute in 1894 and was the senior ranking professor in the school's service has retired. A new instructor, Mr. E. A. Kent, who comes from Kansas State College, will take some of the classes in this department.

Under the present expansion program of the institute, Dr. H. A. Giddings has been appointed as assistant professor of mathematics and Dr. G. C. Webber has been appointed as instructor in the same department. Dr. Giddings comes from the Massachusetts Institute of Technology where he received his Ph.D. and taught mathematics. Dr. Webber received his Ph.D. at the University of Chicago

(*Continued on page* 5)

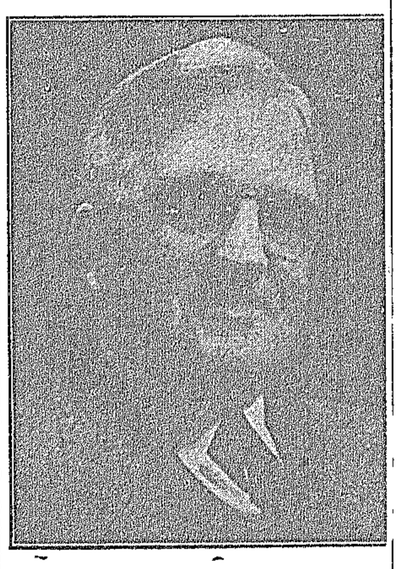
Wanted!

Applications for positions on the reportorial staff of the *Armour Tech News* will be received during lunch hour Thursday, September 24 in the offices of the *News*, fourth entrance. second floor, Chapin hall. Applications for the photographer's position will also be taken. Freshmen and sophomore students are eligible.

While a knowledge of journalistic-english is not imperative, a willingness to do conscientious work is a definite requirement. Freshmen who are interested in newspaper work, or who think they may become interested, are urged not to wait till the second semester or the second year to commence working for the *News*.

New men on the staff will have their choice of working on the editorial staff, the sports staff, or the business staff.

President's Message



Welcome, Class of 1940!

Forty-seven other classes have come as freshmen to Armour Institute of Technology before you came. Three of those classes are still here to join with the faculty in passing on to you the heritage of winnowed and ripened tradition, which should become a part of a man of Armour and make him receptive to all the potential benefits his college education here can bring.

Every class of all the forty-seven which preceded you has contributed something toward making Armour what it is, every class has had a part in preserving the best of Armour traditions. You too will have opportunity to make a discriminating contribution to Armour traditions and Armour life. Your teachers and all the Armour men who have preceded you will hope and expect that Armour will be a better place for the young men who will be Armour students in years to come because of what you do while you are here. Even more, they will hope that you, by your eagerness to profit by your study, by the inspiration of your teachers, and by the qualities of those with whom you cooperate in student affairs, will take away from Armour four years hence an ability to serve your generation nobly. The years of your professional service will be a time in which roundly educated engineers will be greatly needed. We shall all strive as best we can to help you prepare to meet that need.

A hearty welcome is yours!

WILLARD E. HOTCHKISS,
President.

Sept. 22, 1936.

Aptitude Tests Are Given to Freshmen

For the third time in the history of the school, entering freshmen will be given orientation tests which will consist of aptitude tests in mathematics, general science, reading, and English vocabulary. A series of general psychological tests will be included. All freshmen will be required to take these tests which will be given Tuesday, September 22, from 10:00 a. m. to 12:30 p. m., and from 2:00 to 4:30 p. m. on the fifth floor of the main building.

The tests this year will be somewhat different from those used in past years. They come from a variety of sources, two being published by the American Council in Education, and two being furnished by Iowa State University. This will be a strictly objective type of examination which is intended to show aptitude rather than the factual knowledge of the student. It will have no effect on the entrance of freshmen since they will be already enrolled when they take the exam.

The committee giving the tests consists of Dr. C. A. Tibbals, chairman; Dr. W. C. Krathwohl, technical director; and Professors W. B. Fulghum, B. E. Goetz, L. J. Lease, and W. H. Seegrist. These men will be assisted by several other members of the faculty.

Tibbals Appointed Assistant Dean

To Assist Freshmen in Choice of Vocation

In keeping with the present expansion program of the Institute, Dr. C. A. Tibbals was appointed assistant to the Dean. Dr. Tibbals, who is professor of analytical chemistry, will take over his new duties immediately. In addition, he will teach freshman chemistry lecture and recitation and the chemical hazards course.

Increased enrollment and more calls upon the service of Dean H. T. Heald has made necessary the appointment of Dr. Tibbals. In addition to cooperating with the Dean, Dr. Tibbals will direct a personnel service for the guidance of the freshmen and other students.

Dr. Tibbals, who is fifty-five years old, spent his undergraduate days at the University of Wisconsin, where he was also instructor in chemistry from 1902 to 1906. He received his Ph.D. there in 1908 and in the same year joined the staff of the Institute as an instructor in chemistry, serving as an assistant professor until 1910.

During the war, Dr. Tibbals served in the United States Army as Captain in the Ordinance Division. Returning to the Institute in 1919, he accepted the position of associate professor of analytical chemistry, and in 1928 he was promoted to the rank of full professor in the same department.

DR. T. C. POULTER TO DIRECT NEW RESEARCH WORK

Former Senior Scientist of Byrd Expedition

Dr. Thomas C. Poulter second in command and senior scientist of the Second Byrd Antarctic Expedition, arrived at Armour last week to take up his duties as Director of the newly-organized Research Foundation.

Dr. Poulter, although still a young man, has had a great breadth of experience. He received his B.S. at Iowa Wesleyan College in 1923 and his Ph.D. at the University of Chicago in 1933. In 1935 he was awarded the honorary degree of Sc.D. by Iowa Wesleyan College.

He has had considerable experience as an educator, lecturer, and research worker. He taught at Iowa Wesleyan Academy as professor of physics, 1916-18; at the University of Chicago as assistant in chemistry, 1923-25; and at the Iowa Wesleyan College as assistant in biology, chemistry, and physics, 1923; as head of the department of chemistry, 1925-27; as head of the department of physics, 1927-33; and as head of the division of physical sciences, mathematics, and astronomy, 1933. He lectured before fourteen state univer-

(*Continued on page* 5)

Seven Seniors Given Honor Scholarships

Seven seniors have attained distinction by becoming the recipients of half scholarships which were awarded by Dr. Willard E. Hotchkiss, president of the Institute. The winners of the scholarships are: M. H. Beckman, Arch.; W. B. Graupner, E. E.; S. M. Miner, M. E.; J. J. Penn, Eng. Sc.; H. M. Ross, C. E.; and E. A. Heike, Ch. E.

Each of these seniors, representatives of every department but fire protection engineering, is a scholastic leader in his department

Graupner and Penn are the recipients of the Bernard E. Sunny Scholarship; while Miner and Heike benefit through the Isadore S. Prenner scholarship. The John H. Hamline scholarship was awarded to Goldsmith, and the Malek A. Loring scholarship to Beckman. Ross is the recipient of the Edward A. Elcock scholarship.

REMODELED AND IMPROVED SCHOOLROOM FACILITIES READY FOR STUDENT USE

Program Will Continue Over Number of Summers

TO IMPROVE LIBRARY

Talk current for fifteen or more years has been transformed into action. Armour's physical status has been improved, due primarily to the abilities of two men, Dr. Willard E. Hotchkiss and Professor Harold A. Vagtborg. Through their efforts, plans too often out of the reach of the Institute have given way to action.

The manifestations of these plans are everywhere, as the school presents a definitely improved and neat appearance. Chapin and Science Halls and the chemistry laboratories attest to this fact.

Improvements have been made, and what is more encouraging, will continue to be made. A definite plan has been arranged. Each summer the buildings will be improved and remodeled as the need for remodeling arises.

Since this summer's remodeling operations take the "major bite" into the total costs, improvements for the following years will be easier. The feeling current among the faculty, officers of the Institute, and trustees is that should the school move, remodeling costs of the old buildings would be insignificant and negligible as compared to the moving costs.

Next summer the chemical department will definitely see changes. Facilities will be enlarged for the chemical engineering laboratory and all of the freshman chemistry laboratory will be equipped with the same type of lockers as those in the recently installed section. These moves will ef-

(*Continued on page* 4)

Chapin Hall Heads List of Far Reaching Changes

GET NEW EQUIPMENT

Opening officially yesterday, after a summer of bee-hive activity, Armour presents a new and somewhat different appearance. An extensive program of remodeling and redecorating has just been completed. Professor Harold J. Vagtborg, Superintendent of Grounds and Buildings, had complete charge of the program.

Starting in the latter part of June with the placing of 20,000 feet of a new concrete sidewalk by the W.P.A., the large remodeling program took effect.

Chapin Rooms Enlarged

Next on the program and now completed, was the first floor of Chapin Hall, which was completely remodeled and redecorated. Chapin Hall will now be able to accommodate a greater number of students in larger and more pleasant classroom.

West of the long hall running from the third to last entrance are instructors' and departmental offices. To the east are the classrooms. New flooring and modern electrical fixtures overhead enhance the classrooms and offices.

Shortly after work on Chapin Hall started, the organic chemistry laboratory was enlarged some thirty per cent, to accommodate more of the sophomore organic students. Steel lockers, designed originally for the organic chem. laboratory, but used in the freshman lab, were moved to the fourth floor laboratory. By enlarging the laboratory and installing the new lockers, accommodations for 48 more students were made. In the freshman laboratory, four new tables having 96 lockers were installed, thereby taking care of the increased chemistry enrollment.

Windows Bricked Up

On the third floor Main, Science Hall showed similar improvements. The two west windows have been bricked up to keep out the noise of the passing trains. The demonstration platform has been enlarged and placed adjacent to the west wall. New seats have been secured and are arranged so that the two columns are in the center aisle. The women's rest

(*Continued on page* 5)

Ten Freshmen Receive Scholarship for Year

Of the 132 men who took the competitive examinations for the Freshman Scholarship awards last May, ten were awarded full scholarships. The men were given a three hour examination in mathematics and in either chemistry or physics, or both. In addition each was privately interviewed. Character and the applicant's high school record, together with his ability to use English correctly, entered into the judgment of the scholarship committee. The committee was headed by Dr. C. A. Tibbals and included Dean H. T. Heald, S. F. Bibb, W. E. Kelly, W. H. Seegrist, and S. E. Winston.

Those who received scholarships were for the most part Chicagoans. The complete list of the scholarship winners is as follows:

D. I. Dykstra, Central High, Nicoma, Okla.; John R. Gerhardt, Oak Park; Joseph H. Greenberg, Crane; Walter H. Kahl, St. Leo; Clarence Laskowski, Proviso; John M. Lenoir, Senn; Henry F. Newman, Lane; Philip I. Robinson, Tilden; Chas. J. Ryan, Jr., Calumet, and William F. Yeager, Evanston.

A freshman assembly will be held today at 9:00 a. m. in the Mission Assembly Hall. After the assembly all freshmen will report to the fifth floor drafting room in the Main Building for the Orientation Tests.

The course in Heat and Radiation, physics 301, *will be offered on Saturdays from* 8:30 *to* 12:30. *This is primarily a laboratory course in temperature and heat measurements; lectures will cover the experimental work. The course is open to juniors and seniors as an elective. Credit—2 semester hours. Those who wish to take the course should register with Professor Thompson on Tuesday.*

Jobs Secured by Most of '36 Class

Ninety-four percent of the 163 men who graduated last June are employed at salaries five to ten percent higher than in 1935 according to figures released by the placement bureau last week. At this time last year 54 percent of the 1935 graduates were employed, but this figure was later increased to 95 percent.

Mr. W. N. Setterberg reports three to five times as many companies sending representatives seeking interview with seniors this year as compared with 1935. Starting salaries this year range from $100 to $130 per month depending on the size of the company, the kind of work, and the qualifications of the candidate.

Three departments, the civil, fire protection, and science are now employed 100 percent. Through the National Board of Underwriters, the fire protects always have been quite well situated. In the years since 1928, however, the civil department has been toward the bottom. The increase this year was caused by the Illinois Highway department which absorbed most of the men. Increases in the other departments were correspondingly favorable, especially in the architectural department, which with twenty-two graduates each year increased from 37 percent employed in 1935 to 82 percent employed.

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Views expressed in these columns are not those of any individual writer but represent the consensus of opinion of the editorial board of the Armour Tech News.

So You Want to Be an Engineer

Did you ever have the ambition of piloting one of those mighty locomotives that thunders past the back fence of Armour? At the risk of breaking some freshman's heart we must admit that Armour Tech is not planning to turn him into that kind of an engineer. But now that the men of '40 have been welcomed as a class of Armour, they would do well to see just what they are stepping into.

Most of them will not end up as engineers. That surprising fact has been shown in a number of surveys; while engineering students start out by doing engineering work, the records of earlier classes reveal that increasing numbers of engineers take over executive positions. This is the reason for the general and business courses which give every curriculum some of the non-technical grounding that enables the young engineer to take his place in the world as an educated person. But there is more to school than studying and there is an opportunity for everyone at Armour to take part in sports, clubs, and the organizations and activities which show what engineering is doing at the present time.

So greetings and salutations to all new men and old "Armourites" as we again look forward to nine months of crowded activities, absorbing work, and some play.

Freshman Elections

After a week or two of the preliminaries—registration and getting adjusted to the various classes—students will get down to the serious business of studying and electing class officers. This always throws the freshmen into a state of confusion. They are unadjusted and are not acquainted with their classmates so they accept the first method suggested to them and proceed to circulate petitions among themselves. That usually means that one whose ego is somewhat more than his classmates' goes about asking acquaintances and classmates to sign his petition.

The average new student when thus approached feels important and signs, without much thought. When election day comes along the freshman finds himself voting for someone whom he never heard of. Later on he feels dissatisfied with things and feels that something was put over on him.

To the *News*, therefore, it seems that it would be greatly to the benefit of the freshmen to postpone any kind of election until February or March, when they can select their leaders with eyes open, through the traditional method just mentioned or by some representative election committee.

After all, class officers hold more of an honorary position than one of real work except, perhaps, in the senior year. During the first semester of the freshman year there are no dances or parties. Officers are merely so in name until March, which is the usual time for the freshman dance. We are not attempting to "keep down" the freshmen when we suggest that they "learn the ropes" with the help of the green caps which are a big factor in uniting the class and assisting them to meet their classmates and upper classmen, and to forget elections until next semester.

Armour—1940 Version!

Already the result of the definite plans and accomplished remodeling has brought a decided physical and mental change about Armour, and what is more important this is expected to continue to improve.

Students are coming back this year after their vacations with more enthusiasm, more joviality, and more spirit than ever before. This is because they are not returning to the same old classrooms, and the same old equipment. There is something new and attractive about the school which is beginning to look more like a campus. The often too prevailing "tomorrow we will move" attitude on the part of the students, faculty, officers of the institute, and trustees has been, for the most part, replaced by an "improve Armour" frame of mind.

The *News* has a chance to garner students' suggestions for improvement, some of which may not have come to the attention of those in charge of maintenance. Among these are to sandblast the stone and brick of the main building and Machinery Hall, paint or whitewash Mission and Chapin Hall and the other school buildings, obtain and tear down the buildings and landscape the property on both sides of 33rd street at least to State street so as to provide a more pleasant approach to school. All of these would go far toward enriching campus activities.

KALEIDOSCOPE

TO THE NEW students, we wish to introduce the Kaleidoscope. This column is intended to air your ideas concerning poetry, books, authors, plays, humor, philosophy (petty or otherwise) and any other article that might come under the general heading of literature. We would like especially to receive original compositions of anything from abracadabra to zanyisms. If the compositions are not original but only pieces you have enjoyed, send them in anyway.

* * *

A YOUNG LADY who is now concealing her candle under the bushel of a small town in Iowa, has written a number of clever verses. It has never been our pleasure to meet this brilliant person, but we were able to secure a few of her verses from a friend of hers with whom we are acquainted. Here are a few of her witty observations. They are incisive and slightly tinged with cynicism.

* * *

If you only spend
When you have the money
You may eat bread
But never honey.

If you only start
When you know the way,
You'll never stir
'Til judgment day.

If your heart's in love
With tradition only
You'll be respected
But very lonely.

B. A. Fox.

* * *

TO A PRETTY LADY

She hated bleak and wintry things alone.
All that was warm and quick she loved too well,
A light, a flame, a heart held tight against her own.
Will it be bitter cold for her . . . in hell?

B. A. F.

* * *

FROM Richard Henry Little's column, "A Line O' Type Or Two", we offer this selection. It is one of a series called "News of The Literary World," written by Dorothy Kissling, and published several months ago.

* * *

MR. CARL SANDBURG WEARIES OF HIS MUSE

Get out of here, girl.
Get out, I say,
Before I throw you out.
Every time I look around I see your sniveling face
Smeared from forehead to chin with the moldiest words in the language.
I'm tired of it. Tired of it. TIRED, I said.
. . . Yes, I remember all that,
But that was before I saw those pink water lilies
Blossoming in the Jackson Park lagoon.
I wonder if Keats had the right idea after all . . .
Anyway, I'm done with you and don't you forget it.
I tell you the past is a bucket of ashes . . .
You go crawl into it—see?

* * *

IN A LITTLE book of verses which we own, we were amused to find this following the title page:

CONTENTS
Turn the pages and see

* *

ILLUSTRATIONS
Close your eyes and think of the Past, the Present, and anticipate the future.

* * *

"To those who passed me on the highway and gave greeting, and whom I shall never meet again; to the possible friends who came my way, and whose eyes lingered as they fell on mine,—may they ever be eager with youth and strong with fellowship; may they ever miss a welcome nor want a comrade."

ANNA STRUNSKY.
R. W.

The Slipstick

Cleave to the slipstick; let the slapstick fly where it may.

Fakulty Froliks of 1940

We have great fun in giving marks
We give few A's and B's;
What most of all we love to do
Is pass out D's and E's.

(Profs and instructors, all together):

Oh its all in fun, oh, it's all in fun,
We dont care who gets 'em but we're having lots of fun.

(Curtain)

And so ends our colossal production, dedicated to the class of 1940. Now you know it all, the cold stark truth. * * *

Found on freshman's registration card (why Mr. Kelly has gray hair): Name of parent or guardian — Mommy and Daddy.

Next week we give you E. J. Don't fail to clip each and every one of his columns to wrap your lunch in. They'll add that cheesy flavor. The trouble with E. J. is his last line. It's too far from his first.

* * *

ZAZU: (Pounding on E. J.'s head with a hammer): "Knock, knock."
e. j.: "Who is there?"
ZAZU: "Little Old Lady."
e. j.: "Little Old Lady who?"
..ZAZU: "Oh! When did you learn to yodel?" * * *

Let us drink to the thought that where'er a man roves,
He is sure to find something that's blissful and dear;
And that when he's far from the lips that he loves,
He can always make love to the lips that are near.

Thomas Moore.

* * *

DECISION

Silvia has winsome ways;
Her smile makes Monday bright.
Lou is tops, she sings and plays,
To hear her brings delight.
Martha Lee is widely read,
And clever as a quip.
Annabelle can knock them dead;
She shakes a wicked hip.
Between these girls, I'm torn apart.
I don't know which to choose.
Which of these shall have my heart?
Why, all! How can I lose? R. W.

* * *

NOTISS

Hi-Li-ing among the Freshmen will not be tolerated in the Main Lobby. A special play-room will be provided for such purposes in Chapin Hall.

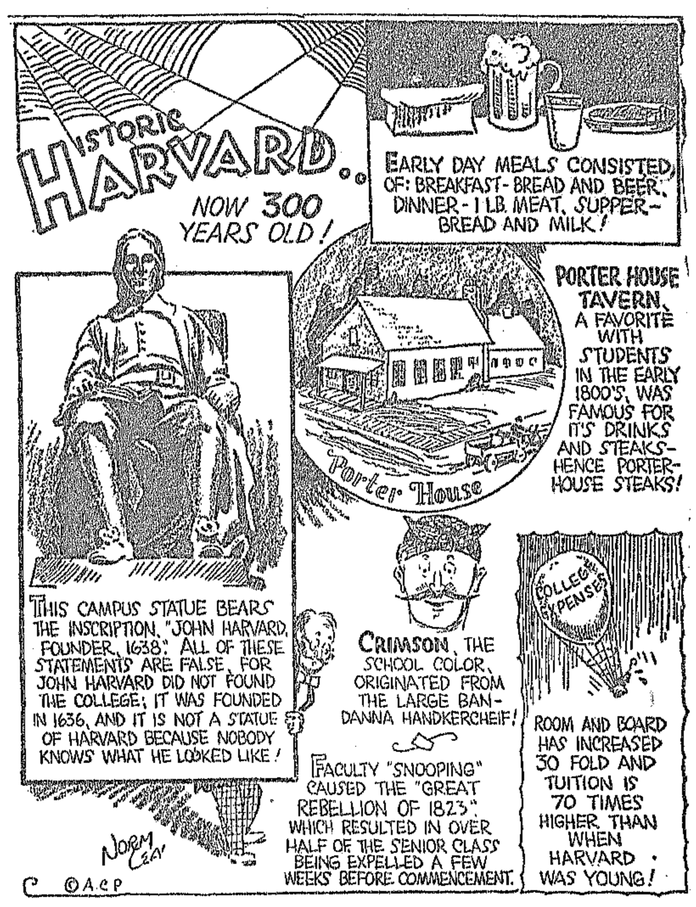
* * *

Hendricks: "What author is noted for his vocabulary?"
Chelgren: "Webster!"

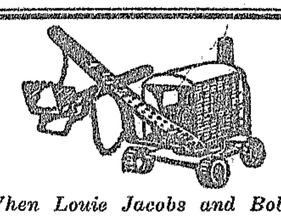
* * *

Oh freshmen, hark to my advice
There's one guy here who's very nice
He's smart, he's cute, in fact, he's swell.
His name I really hate to tell.
But thats **ZAZU.**

CAMPUS CAMERA



THE STEAM SHOVEL



When Louie Jacobs and Bob Homan poured twenty c.c. of alcohol into George Prehler's orangeade, George was certainly brought to life. He turned in one of his best analyses that day. It just goes to show what "tiger tea" can do for you. Maybe if we took some we'd get out a better column.

* * *

Some of the practical jokers went around spreading alum over wash-bottle mouthpieces in chem. Another prank was substituting solid glass rods in place of the mouthpieces. Of course John Masin and Carl Deuter wouldn't know anything about it.

* * *

During a recent inspection trip through the Institute, the visitors were shown through the chem. labs. The blow-off came when a young blonde pointed at "Butch" Kubik and then asked the guide, "What kind of an experiment is that?"

* * *

One of the laziest men (?) at school is B. W. Gamson. It is reported that during the summer chem. courses, "Red" set aside a liter beaker. It wasn't used for any chemistry experiment either. It is suggested that Red save this beaker as it will be a useful mascot in "P"-Chemistry.

* * *

To make sure that they had the same soap samples, Art Wildermuth and Roy Petro decided to make a test by washing themselves with the soap. After they tossed up to see who would wash, Petro started lathering his face. It is quite evident that Pete lost the toss.

* * *

Down at civil camp Burdette Peterson was taught the art of snipe-hunting. Peterson was given a large bag and sent out into the night to catch a few snipe. "Pete" sat rigid in the same spot for about six hours, bag in hand waiting for a bird to run into it. Then came the dawn.

* * *

This column would be very interested in knowing what happened to Will Kruse seven times during a late season baseball trip.

* * *

After drinking up Zazu's croton oil, Deuter, Berger and Ryan could be found loitering in the vicinity of the fifth floor. Zazu told them it was peanut oil, the villain. However, he was rewarded with a bucket of hot water.

* * *

Just as soon as Eng's platinum crucibles were reported missing, Howie (Prof.) Milleville asked "Duke" Evanoff to return them. "Duke" had to take time out from his hydraulic warfare games with Stober and Kahle and try to rustle them up.

Information for Students

Registration Days: Monday and Tuesday, September 21st and 22nd, 1936, are devoted entirely to registration, enrollment in classes, making out program cards, and such other preliminaries as are necessary in order to begin the regular work on Wednesday, September 23rd. A charge of $1.00 is made for late registration, and a fee of $5.00 is charged students for non-payment in full of tuition, fees and deposits.

Freshmen Assembly: Tuesday, Sept. 22nd, 9:00 A. M., Assembly Hall, Mission. Freshman Orientation Tests: Tuesday, Sept. 22nd, 10:00 A. M. to 12:30 P. M., 2:00 to 4:30 P. M., 5th Floor, Main Building. Freshmen will meet Senior group leaders at 10:30 A. M., Friday, Sept. 25th, in assigned rooms. Sophomores, Juniors, and Seniors will enroll as follows:

Mechanicals with Professors Huntly and Peebles in Strength of Materials Laboratory, basement of Main Building.

Electricals with Professors Nash and Sear in Elec. Lecture Room, second floor, Main Building.

Civils and Architects with Professors Penn, Stevens, and Spears, in Civil Drafting Room, second floor, Mission Building.

Chemicals with Professors Freud and Van Atta, in Room A, fourth floor, Main Building.

Fire Protects with Professor Finnegan, in office, 41 W. 33rd Street.

Engineering Science students with Professor Paul, in Chapin Hall.

After enrollment, students should pay their fees on the second floor, Main Building, receiving a registration receipt.

Enrollment in Classes: The registration receipt must be shown to the instructor as it entitles the student to enter classes. No student is allowed to enroll in a class without this receipt. Sophomore students will enroll for Mathematics, Physics, and Mechanics classes in the Electrical Laboratory, 2nd floor, Main Building; for all other classes with the instructors in their offices. As soon as a student has enrolled in all of his classes, he should make out a permanent program card and leave it, with his class enrollment card, at the Office of the Registrar.

Vaccination and Physical Examination: All new students must report to Dr. McNamara for physical examination. Watch bulletin board for appointment. Vaccination certificates are to be presented at time of physical examination.

Library: Students may draw books from the Library by showing their registration receipts to the Librarian.

Gymnasium: Hours for exercise and class work are to be arranged with the Instructor in Physical Training, Gymnasium, fifth floor, Main Building.

Check Room: The Check Room is located on main floor of Mission Building, West Tower entrance. Students are expected to check their hats, overcoats, and umbrellas.

Elevator: Juniors and Seniors are the only students allowed to use elevator.

Text Books: Text books and all students' supplies may be obtained in the Students' Supply Store, Mission Building.

Board and Room: Information in regard to board and room may be obtained in the Office of the Registrar.

Fountain Lunchroom (and Student Union) is located in the basement of the Mission Building, and will be open from 9:00 A. M. to 6:00 P. M.

Telephone: Public telephones for local and long distance calls are located on the first floor of Main Building.

Cashier's Office: After September 23rd, all fees and deposits for lockers, keys, tools, laboratories, drawing boards, etc. are to be paid in the Cashier's Office, northwest corner, second floor, Main Building, from 8:30 A. M. to 2 P. M.

Complete Program Schedule

Abbreviations: Hours—I (8:30-9:20), II (9:30-10:20), etc.; Aft. (2:00-5:00). Rooms—Dr. (Drafting Room), P.L.R. (Physics Lecture Room, Second Floor Main), E.L.R. (Electrical Lecture Room, Second Floor Main), Sc.H. (Science Hall, Third Floor Main). Buildings—Ma. (Main), Ms. (Mission), CH (Chapin Hall), M.H. (Machinery Hall), U.L. (Underwriters Laboratory), A.I. (Art Institute), C-100 (Chapin Hall).

MECHANICAL ENGINEERING

Elem. Mach. Drg.—101	Aft. (Daily) Main	Draw. Instructors
	I-III (S.) Main	Hammett
Desc. Geom.—103	I (M. W. F.) C-114	McLarney
	II (M. W. F.) C-114	Hammett
	IV (M. W. F.) C-114	Seegrist
	V (M. W. F.) C-114	Hammett
Mechanism—201	IV (M. W. F.) A-Ms.	Swineford
	V (M. W. F.) A-Ms.	Winston
Mach. Drg.—203	Aft. (T. Th. F.) Dr.-CH.	Swineford & Winston
Mach. Dsgn. (E.E.)—205	IV (M. W. F.) C-M. H.	Huntly
Mach. Dsgn. (Ch.E.)—205	IV (T. Th.) A-Ms.	Hammett
	I (W.) A-Ms.	Hammett
	V (M. W. F.) B.	Swineford
Valve Gears—301	III (M. W. Th.) B-M. H.	Perry
	IV (M. W. F.) B-M. H.	Perry
Adv. Mach. Drg.—303	Aft. (M. W. F.) Dr.-CH.	Perry & Swineford
Eng. Thermo.—305	I (Daily) A-M. H.	Nachman
	II (Daily) A-Ms.	Winston
Exp. Eng. (M.E.)—308	V (F.) A-M. H.	
	Aft. (Daily) Lab.	
	III (T.) P. L. R.	
	Aft. (Daily) Lab.	
	I-III (S.) Lab.	
Exp. Eng. (E.E.)—310	I (F.) E. L. R.	
	Aft. (M. W. F.) Lab.	
Exp. Eng. (C.E.)—310	IV (T.) A-M. H.	
	Aft. (M. F.) Lab.	
	I-III (S.) Lab.	
Exp. Eng. (Ch.E.)—310	V (T.) C-Ms.	
	Aft. (T. Th.) Lab.	
	I-III (S.) Lab.	
Exp. Eng. (F.P.E.)—310	V (Th.) A-M. H.	
	Aft. (W. F.) Lab.	
Mech. Equip.—314	II (M. T.) B-M. H.	Seegrist
Elec. Thermo.—316	II (M. W. F.) E. L. R.	Peebles
Mach. Drg.—317	Aft. (F.) CH.	Winston
Eng. Shop. (M.E.)—318	IV (F.) G-CH.	Pearl
	IV (T.) P. L. R.	Pearl
	Aft. (M.W.F.) Shop	Pearl
	I-III (S.) Shop	Pearl
	V (T.W.) A-M.H.	Pearl
Eng. Shop. (E.E.)—318	V (Th.) A-M.H.	Pearl
	Aft. (W.F.) Shop	Pearl
	I-III (Th.S.) Shop	Pearl
	Aft. (T.Th.) Shop	Pearl
	III (W.) E.L.R.	Pearl
Stm. Pwr. Pl. Eng.—401	II (Daily) A-M.H.	Nachman
	III (M.T.W.Th.) A-M.H.	Nachman
	IV (F.) A-M.H.	Nachman
Stm. Pwr. Pl. Drwg.—403	Aft. (W.F.) Dr.-CH.	Perry
El. Heat. Pwr. Eng.—411	IV (M.T.W.Th.) B-CH.	Libby
El. Heat. Pwr. Eng.—412	V (W.F.) C-117	Seegrist

CHEMICAL ENGINEERING

Gen. Chem. Lect.—101	III (M.T.Th.) Sc.H.	Tibbals
Gen. Chem. Rec.—101	IV (T.Th.) A.	Tibbals
	IV (T.Th.) B.	Van Atta
	IV (T.Th.) C-114	Zmeskal
	IV (T.Th.) C-117	Schaad
	V (T.Th.) B.	Van Atta
	V (T.Th.) C-117	Manley
	V (T.Th.) C-114	Zmeskal
	VI (M.W.) B.	Manley
Gen. Chem. Lab.—102	Aft. (Daily) Lab.	Chem. Instructors
	I-III (S.) Lab.	Schaad
Org. Chem. (Ch.E.)—204	IV (M.W.F.) P.L.R.	Freud
Org. Chem. (Ch.E.)—206	(a) Aft. (M.) Lab.	Freud
	(b) Aft. (W.) Lab.	Freud
	(a) Aft. (T.) Lab.	Van Atta
	(b) Aft. (Th.) Lab.	Van Atta
Org. Chem. (F.P.E.)—210	I-III (S.) Lab.	Van Atta
Chem. Eng.—301	IV (M.W.F.) A.	McCormack
Chem. Eng.—303	II-IV (T.) Lab.	McCormack
	Aft. (M.T.W.) Lab.	McCormack
Adv. Org. Chem.—305	III (M.W.) P.L.R.	Freud
Phys. Chem.—308	II (M.W.F.) P.L.R.	Freud
Phys. Chem.—310	Aft. (Th.) Lab.	Freud
	Aft. (F.) Lab.	Manley
Ind. Chem.—312	III (T.W.Th.) B.	Schommer
Ind. Chem.—313	Aft. (T.Th.) Lab.	Schommer
Chem. Eng.—401	III (M.T.W.) A.	McCormack
	II (M.W.F.) B.	McCormack
Chem. Eng.—403	I-VIII (Th.) Lab.	McCormack
	Aft. (F.) Lab.	McCormack
Gen. Met.—405	II (M.W.F.) C-M.H.	Carpenter
	III (M.T.W.) C-M.H.	Carpenter
Gen. Met.—407	V-VIII (M.W.) Lab.	Carpenter & Zmeskal
Chem. Hazards—410	II (T.-Th.) A.	Tibbals

CIVIL ENGINEERING

Eng. Draw.—201	Aft. (F.) Ms. Dr.	Spears
Elem. Surv.—202	V (M.Th.F.) B-Ms.	Penn
	Aft. (M.) Field	
Ry. & Hy. Cons.—302	III (M.T.W.Th.) C-117	Stevens
	Aft. (W.) Ms. Dr.	Stevens
Stresses—303	I (Daily) B.	Penn
Graph. Probs.—305	Aft. (Th.) Ms. Dr.	Stevens
Bldg. Const.—311	IV (M.W.) C-117	Spears
	Aft. (T.) Ms. Dr.	Spears
Graphics—314	I (M.T.) A-Ms.	Spears
	I-III (W.)	Spears
Astronomy—401	III (M.T.Th.) D-Ms.	Penn
Higher Struct.—404	I (T.Th.) C-117	Stevens
	Aft. (M.) Ms. Dr.	Stevens
Water Supply Eng.—405	I (M.W.F.) C-117	Vagtborg
Bridge Design—408	Aft. (T.Th.F.) Ms. Dr.	Ensz
Aerodynamics—410	IV (F.) B-CH.	Wells
	V (M.T.W.Th.) B-CH.	Wells
Steel Construction—413	II, III (M.)	Spears
	I-III (S.)	Spears
	II (F.) B-Ms.	Spears
Surveying—417	I-III (S.) B-Ms.	Ensz
Soil Mechanics—501	V (M.W.F.) F-CH.	Ensz

ELECTRICAL ENGINEERING

Elem. of E.E.—201	IV (M.W.F.) E.L.R.	Richardson
Elec. Lab.—203	Aft. (M.T.W.) Lab.	Richardson
D. C. Mach.—301	I (M.T.W.Th.) E.L.R.	Moreton
D. C. Lab—302	II-IV (T.Th.) Lab.	Moreton
	III (M.) E.L.R.	Moreton
A. C. Mach.—401	I (M.T.Th.F.) A.	Freeman
A. C. Cct.—403	I (W.) A.	Richardson
	II (M.F.) A.	Richardson
A. C. Lab.—404	II-IV (T.Th.) Lab.	Freeman
	Aft. (M.) Lab.	Freeman
Oper. & Test.—404	III (M.) F-CH.	Freeman
Elec. Pwr. Plts.—406	IV (M.F.) B-Ms.	Nash
	V (T.) B-Ms.	Nash
A. C. Prob.—401	II-IV (W.) CH.-Dr.	Freeman
Electricity (M.E.)—414	I (T.Th.) P.L.R.	Nash
	Aft. (M.T.Th.) Lab.	Nash
Electricity (C.E.)—414	II (T.Th.) E.L.R.	Kent
	Aft. (W.) Lab.	Kent
	I-III (S.) Lab.	Kent
Electricity (Ch.E.)—415	IV (M.W.) C-Ms.	Hobson
	Aft. (M.W.F.) Lab.	Hobson
Electricity (F.P.E.)—415	IV (T.Th.) E.L.R.	Hobson
	Aft. (Th.) Lab.	Kent
Radio—418	VI (T.Th.) E.L.R.	Sear
	II-IV (T.Th.) Lab.	Sear
Radio—418	Aft. (M.) Lab.	Sear

FIRE PROTECTION ENGINEERING

Fire Ins. Schedule—201	II (T.Th.) B-CH.	Finnegan
Fire Prot. Eng.—301	I (T.Th.) B-CH.	Finnegan
Fire Prot. Eng.—303	V-VIII (M.) U.L.	Robinson
Fire Ins. Pract.—305	I (M.W.F.) B-CH.	Finnegan
Fire Prot. Eng.—403	V-VIII (T.) U.L.	Robinson
Und. Standards—405	III (T.W.) B-CH.	Finnegan
Spec. Hazards—407	II (M.W.F.) B-CH.	Finnegan
Sched. Rating—408	IV (M.) A-M.H.	Sorensen
	Aft. (M.) Dr.-CH.	Snediker

ARCHITECTURE

Desc. Geom.—101	V (W.F.) A.I.	Suter
	I-IV (S.) A.I.	Suter
Free Hand Draw.—105	VI, VII (M.F.) A.I.	Krehbiel
Arch. Des.—107	V-VIII (T.Th.) A.I.	Suter
	VI (W.) A.I.	Suter
Arch. Const.—201	IV (T.Th.) A.I.	Harper
Hist. of Arch.—203	VIII (M.F.) A.I.	Hofmeester
Free Hand Draw.—205	III, IV (M.W.) A.I.	Krehbiel
Arch. Des.—207	V-VIII (T.W.Th.) A.I.	McCaughey
	V-VII (M.) A.I.	McCaughey
	IV-VII (F.) A.I.	McCaughey
	I-IV (S.) A.I.	McCaughey
Arch. Modeling—301	I-VIII (Th.) A.I.	Hofmeester
Free Hand Draw.—305	V-VIII (W.) A.I.	Krehbiel
Arch. Des.—307	III-VII (M.) A.I.	McCaughey
	III-VIII (T.) A.I.	McCaughey
	IV-VII (F.) A.I.	McCaughey
	I-IV (S.) A.I.	McCaughey
Water Color—309	I-III (F.) A.I.	Krehbiel
Arch. Prac.—401	V (T.Th.) A.I.	Harper
Arch. Des.—407	IV-VIII (M.F.) A.I.	Skidmore
	I-IV (T.Th.) A.I.	Skidmore
	Aft. (T.Th.) A.I.	Skidmore
	II-VIII (W.) A. I.	Skidmore

SOCIAL SCIENCE

Bus. & Eng. Prob.—101	I (M.W.F.) D-Ms.	Hansen
	II (M.W.F.) D-Ms.	Hansen
	II (M.W.F.) C-111	Goetz
	IV (M.W.F.) B.	Hansen
	IV (M.W.F.) Sc.H.	Goetz
	V (M.W.F.) Sc.H.	Dutton
Eng. Prob.—101	III (W.) Sc.H.	Hansen
Bus. Policy—401	I (M.W.F.) P.L.R.	Goetz
	II (M.W.F.) Assem. Hall	Dutton
	V (M.W.F.) E.L.R.	Goetz
Pub. Policy—402	I (M.T.W.F.) Assem. Hall	Dutton

MECHANICS

Eng. Mech.—201	II (T.Th.F.) F-CH.	Mangold
	III (M.W.Th.) E-CH.	Harris
	IV (M.W.F.) A-CH.	Mangold
	IV (T.Th.F.) E-CH.	Harris
	V (M.W.F.) E-CH.	Harris
Eng. Mech.—202	III (T.W.Th.) F-CH.	Mangold
App. Mech.—203	I (T.W.Th.) F-CH.	Mangold
App. Mech.—204	I (M.T.Th.) E-CH.	Harris
	II (M.W.F.) E-CH.	Harris
Mech. of Mat.—301	I (Daily) D-CH.	Paul
	II (Daily) C-117	Wells
	II (Daily) D-CH.	Paul
	IV (Daily) D-CH.	Paul
	V (Daily) D-CH.	Mangold
Flow of Fluids—303	(a) I (M.F.) F-CH.	Mangold
	(b) IV (T.Th.) B-Ms.	Mangold

MATHEMATICS

Coll. Alg. & Trig.—101	I (Daily) C-102	Webber
	I (Daily) C-105	Oldenburger
	I (Daily) C-108	Giddings
	II (Daily) C-Ms.	Spencer
	IV (Daily) C-105	Davis
Rev. Alg.—10	I (Daily) C-111	Bibb
	I (Daily) C-Ms.	Spencer
Anal. Geom.—102	II (Daily) C-102	Webber
	IV (Daily) C-108	Giddings
Sol. Geom.	II (T.Th.) B.	Bibb
Math. for Archs.—103	III (M.W.Th.) A-Ms.	Krathwohl
Calculus I—201	I (M.T.W.Th.) B-Ms.	Krathwohl
	II (M.T.W.Th.) C-108	Giddings
	III (M.T.W.Th.) C-111	Bibb
	III (M.T.W.Th.) C-Ms.	Spencer
	V (M.T.W.Th.) C-102	Davis
Calculus II—202	II (M.T.W.Th.) B-Ms.	Krathwohl
	V (M.T.W.Th.) C-108	Oldenburger
Diff. Eqn's.—301	IV (M.W.F.) C-111	Bibb
	V (M.W.F.) A.	Krathwohl

PHYSICS

Phys. Rec.—201	I (M.T.W.Th.) A-CH.	Thompson
	I (M.T.W.Th.) B-CH.	Potter
	II (M.T.W.Th.) A-CH.	Thompson
	III (M.T.W.Th.) A-CH.	Colvert
	V (M.T.W.Th.) A-CH.	Sprague
Phys. Lect.—201	I (F.) Sc. H.	Thompson
	II (F.) Sc.H.	Thompson
Phys. Rec.—202	II (M.T.Th.F.) C-105	Colvert
Phys. Lect.—202	II (W.) Sc.H.	Colvert
Phys. Rec.—203	II (W.F.) F-Ms.	Potter
Phys. Lab.—205 & 206	Aft. (Daily) Lab.	Lab. Inst.
	I-III (S.) Lab.	Sprague
Phys.—301	I-IV (S.) Lab.	Thompson

ENGLISH

Lit. & Comp.—101	I (T.Th.) G-CH.	Olson
	II (M.W.) F-CH.	Olson
	II (T.Th.) G-CH.	Fulghum
	II (M.W.) G-CH.	Hendricks
	IV (M.W.) G-CH.	Hendricks
	IV (T.Th.) G-CH.	Fulghum
	V (M.W.) G-CH.	Olson
	V (T.Th.) G-CH.	Hendricks
Exposition—201	I (T.Th.) D-Ms.	Fulghum
	II (T.Th.) C-114	Hendricks
	III (M.W.) G-CH.	Hendricks
	III (T.Th.) G-CH.	Olson
	IV (M.W.) F-CH.	Olson
	IV (T.Th.) F-CH.	Hendricks
	IV (T.Th.) C-111	Olson
	V (T.Th.) F-CH.	Fulghum
Elem. Fr.—103	I (M.W.F.) G-CH.	Olson
Elem. German—301	I (T.Th.) F-Ms.	Sager
	II (T.Th.) F-Ms.	Sager

SIDELINES

By Sydney M. Miner

POLITICS AS AN important factor in this country's condition reaches its climax during the political campaign now in progress. At the present time, this campaign forms the most outstanding and important item of news interest in this country. Two obvious reasons for this importance can quickly be summarized. The first of these is the diametrically opposed viewpoints of the two leading parties. With certain restrictions, one stands for an extremely liberal or radical course, while the other supposedly supports an extremely conservative or reactionary course. Certainly with these opposing viewpoints, there will be a vast difference in the type of government to be expected from either of these parties. The second reason lies in the effect of the political campaign upon the industries of the country. This effect will be noticed both directly and indirectly, if such terminology may be used. The direct effect will be that which accompanies any national political campagn, and particularly a strenuous one. The indirect effect will be that which industry will feel from its government connections, certainly a very questionable connection with the opposing viewpoints of the two campaign parties.

THE FALLACIES, misrepresentations, and propaganda form of campaigning being used by both parties are almost self-evident. Witness two particular items. Both parties claim to be greatly interested in the employment situation. The Republican party, while criticizing the Democratic form of employment relief, presents nothing more definite than the statement that it wishes to relieve unemployment stress by finding or making jobs in private industry. How it expects to do this without government interference in industry (a point upon which it is very emphatic) is not explained. The Democratic party on the other hand proudly displays statistics showing the vast results which have been accomplished in the unemployment situation, but forgetting to mention that these statistics are gluted with numbers of men who are located in what are supposed to be temporary government jobs.

IN REGARD TO economic conditions, the Republican party started out by trying to present a formidable picture of business degeneracy, but unable to cover over the upturning conditions it has changed to an attitude of taking the glory for the improvement in the industrial world upon its aggressive campaign. The Democratic party, on the other hand, claims all the glory for the improving business field upon its methods, granting no share in the responsibility to industry itself.

THAT THE MUD-slinging of this campaign will more than compare with that of any other campaign in history is now far from conjecture. That the public is beginning to take less and less of an interest or belief in what it reads is also becoming more evident. It is an extremely difficult matter for any publishing organ to refrain from a partisan viewpoint and in most cases, their desires are far from that attitude. Consequently, the old saying of "believe half of what you see and less of what you hear" is becoming "believe less of what you read and still less of what you hear." Which party is doing the most mud slinging or propaganda campaigning is hard to say, but it is certain that both of them are going to come out of it in an extremely besmirched condition.

OTHER CAMPUSES

From Beaumont Texas, comes word that the "knock knock" fad has entered politics there. A telephone friend of a local candidate has been calling acquaintances with "Knock Knock".

"Who's there?" comes the query.

"Aleck."

"Aleck who?"

"Aleck' Benn Shipley county commissioner and get a constructive administration, etc..."

Now boys, this is carrying knocking in politics just a bit too far.

From the U. Daily Kansan comes the information that a $4,000 still will be installed by chemists at Kansas U. For serious work only.

Another one from the Daily Kansan released by the United Press states that Harvard University still receives fifteen dollars annually through a benefaction made 286 years ago. In 1650 John Newgate set aside a perpetual annuity of five pounds a year from his farm at Rumney Marsh, now part of Chelsea Mass. When the farm was sold in 1844, a cash bonus disbursement which provided the same income was made, and the item still is carried on the Harvard treasurer's books the principal now being $366.

Two Indiana University students have set up permanent living quarters in a trailer house car on a vacant lot near the school. The portable dormitory is equipped with a cooling system, cooking stove, radio, furnace, kitchenette and sleeping accommodations for four persons.

A number of students at Kansas University gave phony names and phone numbers when filling out church forms on registration day last week. Apparently they were afraid of persecution for non-religion.

And the registrar and deans of men and women at Indiana announce a penalty of the loss of five hours of University credit for a student neglecting to report his or her marriage.

College and grade school teachers in Massachusetts have organized to protect themselves from "pressure groups seeking to regulate activities."

"College today is something like a chain drug store which in spite of the many invasions into other merchandising fields continues to sell a few drugs," says Albert Britt, president of Knox College.

This year is the first year that farm implements equipped with rubber tires are being used to any great extent, according to a report from the agricultural engineering department at the University of Illinois.

Students Invited to Enter Musical Clubs

Hoping to get material from which an organization can be built to maintain last year's fine record, the musical clubs are conducting a registration booth.

All students who wish to join the musical clubs are invited to register at the booth in the lobby of the main building either today or tomorrow.

The musical clubs entertained at a number of dinners last year and began this year's activity by taking part in the Constitution Day Celebration last Thursday evening at the Chicago Stadium. Patrick Henry, Thomas Jefferson, and many others were represented. In swift succession, "minute men," Confederate and union forces, marines, and middies traded places. In fact, many led double theatrical lives, and within ten minutes minute men became marines or even farmers.

At the meeting of the new musical club's officers on September 7, plans for the current year were discussed. The officers elected at a meeting in June—P. M. Martin, president; W. A. Chapin, vice-president; F. D. Hoffert, business manager; and W. Chelgren, secretary and treasurer—discussed the possibilities of return engagements to the Belmont Hotel, downtown business men's clubs, and the now famous National College of Education with director O. G. Erickson. It was decided that an aggressive program would be planned to benefit the students as well as the Institute to the utmost.

The first Glee Club rehearsal will be held this Thursday at the usual hour, 5:00 o'clock, in the assembly hall in the Mission, and the first orchestra rehearsal will be held on next are going to come out of it in an exbly hall.

ARX NEWS

Hello you guys! Let this be the official greeting of the Arx Department to all you new men and also to the returning "charette" veterans. And with these so-called veterans, who have already been initiated into the intricacies of architectural life, we welcome you freshmen into our midst. You have probably heard that the Arx are a peculiar lot; fellows with crazy ideas and crazier actions and we will admit they are different but they're harmless, and secretly, a few of the engineers need watching too.

Now, just a few facts about the Arx Department in general that you new men might like to know . . . This is your column, of, for and by the Arx which only means that anything you are likely to say or do might later find its ways here and turn up in print . . . The upper-classmen are all for you and are willing to help and advise at all times and they will pass on to you as much knowledge as they can spare and of course you will reciprocate by "niggering" . . . Always remember—only Juniors and Seniors may enjoy "LIFE" . . . The strange lingo the boys use around here might be confusing for a while but that will be acquired along with customs and habits in the natural process of fitting in.

The boys who were at summer school had to act as real gentlemen, much as it hurt, for there was a girl in the class, which meant that they could not shed their clothes. However, the classayers, LOHMILLER and RAMP got around that by removing themselves to the hottest room in the Department where they really did have to strip. In order to combat the heat Phil TRUTTER and ERICKSON would lead the daily procession downstairs for a "coke", and just as a form of diversion the radio (oh yes, the radio) was going full-blast all day. The Class "B" men took "The School for Social Rehabilitation" project and are now sitting tight 'til they hear the report of the judgment in New York, and what a backfire that will be!

All freshies will wear green hats in the drafting rooms this year for a change, this being to indicate a proper deference to their more erudite classmates. Spare the rod and spoil the ego.

Congrats to: Morris Beckman, for winning the Malek A. Loring Scholarship . . . to Ed Schmaltz for the swell job he did on the new Chapin Hall plans . . . to all of us; our last year's scholastic rating was higher than the Mechanicals. Honest!

Sour note: the Department walls were properly slopped with green calcimine by Hank (Raphael) Lohmiller and Chuck (Michelangelo) Saletta.

And now, we all join in to wish Mr. Louis SKIDMORE and Mr. Jerrold LOEBL huge success in the managing of the Architectural Depart. With everyone behind them and with plenty of pep after the refreshing vacation, things will really hum around here. Although it may be that many of us will have to recuperate after the "vacation", and even then we'll hear that humming sound.

TOM TAX.

Fraternity Notes

RHO DELTA RHO

The Rho Delts extend a warm greeting to the incoming freshman, class of '40. And to its newly iniated members, heartiest congratulations.

At the Formal Initiation Banquet held Sept. 1, Coach "Sonny" Weissman, mentor of boxing and wrestling was initiated as an honorary member of the fraternity. Initiated as active members were:

M. Holland, Ch.E., '37.
I. Ikken, C.E., '37.
H. Ruekberg, M.E., '37.
M. Ephrain, '39.
H. Harrison, '39.
R. Jaffee, '39.
H. Levine, '39.

During the weeks preceeding the banquet, a beach party and a roller skating party were held. In attendance were active members and their friends.

PHI KAPPA SIGMA

Alpha Epsilon Chapter of Phi Kappa Sigma takes this opportunity to welcome you, the incoming class of Armour. We feel certain that you will find your life at Armour as enjoyable as we have found ours.

After a pleasant summer of vacationing, working, and enjoying themselves at the National Convention of the Fraternity held at Hershey, Pa., the men have placed the house in tiptop condition for the opening of the fall term.

The golf and tennis teams are looking forward with great expectation to the coming inter-fraternity matches.

SIGMA ALPHA MU

Our new rooms at 3333 Federal are nearing completion after being completely remodeled and redecorated. Plans have been made for an extensive fall program including several parties and dances, an Alumni banquet, and a Mothers and Fathers Club meeting. We anticipate a very successful season this year and enthusiastically look forward to greeting our new members.

Irv Addis and M. H. Winograd attended our Midwestern convention at Kansas City last June and reported a very successful meeting. Our national convention is now being organized to be held during the Christmas holidays in New Orleans.

PI KAPPA PHI

Pi Kappa Phi wishes to extend their heartiest greetings to the incoming freshmen.

Brothers Engelschall and Watts who recently transferred to Illinois are now established in the Illinois chapter. Brother Saville has entered the R.C.A. school and he is studying radio. Brother Thomas recently returned from Seattle, Washington and reports that the conclave held there by the Pi Kaps was a complete success.

A completely redecorated and reconditioned house is the result of last week's house cleaning. The boys got together and spent the better part of a day relating their vacation experiences. It seems that there are other ways of spending a vacation besides going to summer school. We are now working to make this a most successful year at the Alpha Phi chapter.

TRIANGLE

We wish to welcome the class of '40 to the Armour campus.

The boys have been working hard cleaning the house and are looking forward to the forthcoming events of the school year.

Congratulations to the graduates of last year, all of whom have secured positions, and to Brother John J. Penn for receiving one of the senior scholarships.

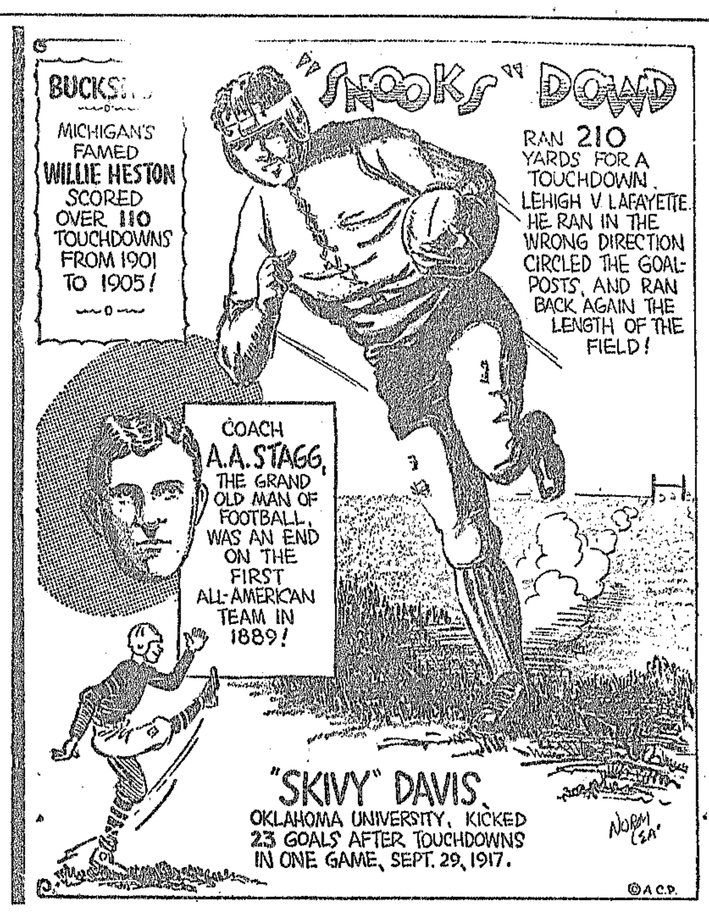
THETA XI

Reviewing the news of the summer, we find the alumni of '36 enjoying varied climates:—our president of last semester, Don Graham, is testing motors for General Electric at Erie, Pa., Jim Kropf is in the employ of Westinghouse at Pittsburgh, Gene Norris is at Niagara Falls with National Carbide, Mr. and Mrs. Roy Kercher are enjoying their new home at Milwauke, where Roy is in the employ of Cutler-Hammer, and latest news reveals that Bob Stevens is with Universal Oil Products at Riverside. Shorts: Our two Nordic Fire Protects, Magnuson and Anderson, have returned from Columbus and Louisville respectively. We are proud to announce that the Inter-fraternity Scholarship Cup will again reside upon our mantle. At the present time our pledge class is composed of the following men:

Louis F. Kacel, '37.
Robert E. Worcester, '38.
Richard Young, '39.
Eugene M. Imbur, '37.

Brothers Ansel, Dreis, and Pledge Brother Kacel found varied interests at Northwestern on a recent visit to Alpha Kappa Chapter. Domestic duties are the current diversion at the house where the rooms are enjoying a thorough overhauling. Everyone is looking forward to the start of the new semester with the return of classmates and the incoming new students.

CAMPUS CAMERA



Try These Slips on Your Slipstick, But Be Sure You Have It in Gear

By Morton Luber

Slip I—Obtaining a Slide Rule

In order to impress your friends and your girl that you are really an engineer, determine to secure a good rule. Get one, either buy it or find it, with as many numbers and scales as possible. The more scales it has, the greater the impression. Get a magnifying glass on the slide by all means. Your errors will be more accurate.

Slip II—Carrying a Slide Rule

On first obtaining a slide rule, print your name, address, telephone number, home address, and reward offered. Don't fail to do this as you will surely lose your slide some time or other. They all do. Take the rule with you wherever you go. Wear it in the right coat pocket exposed to full view. One of those new orange colored cases will really go well with any attire. Really!

Slip III—Fundamental Relations

Remove the slide rule from the case. Remove slider and let it drop easily from a height of ten feet on some hard substance such as iron or concrete. Buy a new slider and place a standing order for one per week. Work the inside scale up and down the rule until it moves easily from one mark to another. If the rule sticks, whittle off about one-half inch and try again. Save the shavings, you may get enough to build a model airplane.

Slip IV—Relations—Continued

Take some simple numbers, as two, ten, seven, eleven, etc., which you know are right. Follow directions closely. Place the slider and scale over the same number on the lower scale. This takes time to learn and must be mastered thoroughly. Now, if you wish to multiply two by three, pass the glass slider over three on some other scale. Look all over the rule until you find six on some other scale. If you do find a six, repeat until the result is 5.95, or nearly that. A little practice such as this will soon wreck your arithmetic, but you don't need it now anyhow. If your mother married your father in 1890, place the decimal after the second number. If Za-Zoo-Za (not adv.) is your favorite tune, place it after the fifth. In any case you will be wrong and you will have to check it by longhand.

Slip V—Secondary Manipulations

One must learn to be very fast and accurate with the rule in order to get ahead. This gives one more time to correct the errors that always come up. A common practice among civil students is to use the slide rule as a back scratcher. By adjusting the slider, the rule can be manipulated to reach any vulnerable spot on one's back. Last year, an Arch student suggested using the rule for making splints for any broken hands sustained in street brawls. One Schmier went as far as to suggest to just use a slide for calculations. This is frequently done among some of the better students. It was predicted last year by one of the janitors that more slide rules will be used this year than ever, so you might as well get one. Anyhow, a rule is preferable to counting on one's fingers.

NEW PLANS—

(*Continued from page* 1)

fectively take care of doubled enrollment in the chemical department.

The physics department will take over next summer the first and second floors in the second entrance Chapin. This explains the seemingly abrupt ending of the hallway at the third entrance. The present partition between the light and general laboratories will be removed; thus securing a larger laboratory. Separate laboratories for heat, light, and sound will be made in the new section.

Reroof Buildings

In addition a laboratory in soil mechanics will be built, probably during this semester. Professor Ensz will be in charge and direct the research work. Other work that will be done this semester will be the reroofing of Chapin Hall and the Armour Flats. The second and third floors in Chapin were to have been remodeled this summer. However, the work will probably be done next year.

Quite definite plans for securing more stack space for the library have been made. At present the library keeps many of its books in Chapin Hall. The books are to be moved to the fifth floor drafting room in Main converting the room into an annex of the library. An elevator will run from the library to the fifth floor; thus facilitating the handling of the books.

Plans are made to remodel the 33rd and 34th Street buildings and to utilize these buildings for research projects.

Remove Porches

Eventually all of the porches will be removed and replaced by steel stairs. The courtyard in back of these buildings will further be improved by moving the tennis courts to Federal Street opposite the fieldhouse. The sidewalks will then be torn up and a definite scheme of landscaping will be followed.

That these plans are ambitious there is no doubt. Due credit should be given to the forward looking trustees and to Dr. Hotchkiss. The work first started when Dr. Hotchkiss created the office of Superintendent of Grounds and Buildings, and the appointment of Professor Harold J. Vagtborg to this post.

Appoint Committee

Soon after this a special committee of two trustees, Mr. Alfred S. Alschuler and Mr. Knute T. Farr, with Professor Vagtborg, made a survey of the grounds. Plans of buildings were drawn up, and recommendations for remodeling were made and consequently approved by the Board of Trustees.

The complete program will take a few years. To quote Dr. Hotchkiss: "I feel more encouraged. We have turned the corner. A great many questions remain unanswered, but they will be solved."

"We are trying to find the best solutions we can and negotiations are being made on securing a more stable financial situation," further was elaborated by the President.

Office Releases Student Ratings

Scholastic standings released by the Office of the Registrar indicate improved scholarship for the fall semester of 1935-1936 as compared to the spring semester of 1935-1936. Organizations showing an improved scholastic standing were the undergraduate student body, the classes and the various departments, while social and honorary fraternities for the most part suffered losses in scholarship.

Seniors Highest

The average of the student body, a total of 750 students, is 1.62.

The average of the various classes are as follows:

Senior Class	1.96
Junior Class	1.69
Sophomore Class	1.57
Freshman Class	1.39

Frank D. Cotterman heads the senior class with an average of 2.96, William B. Graupner heads the juniors with 2.93, William R. Marshall heads the sophomores with 2.91, and freshmen George J. Derrig outranks all other class leaders with a perfect 3.00.

In computing the departmental averages, freshman students are not included:

Engineering Science	2.08
Fire Protection Engineering	1.92
Civil Engineering	1.78
Electrical Engineering	1.74
Chemical Engineering	1.71
Architecture	1.64
Mechanical Engineering	1.57

T. X. Beats Rho Delts

Among the scholastic honorory fraternities, Tau Beta Pi heads the list.

Tau Beta Pi	2.58
Chi Epsilon	2.42
Eta Kappa Nu	2.42
Phi Lambda Upsilon	2.41
Salamander	2.36
Pi Tau Sigma	2.19

Of the non-scholastic honor organizations, Pi Nu Epsilon has an average of 1.84, and Sphinx honor society has an average of 2.23.

The scholastic average of the professional fraternities is:

Scarab	1.95
Alpha Chi Sigma	2.11

In the competition for the loving cup awarded annually to the social fraternities, a slim margin of 0.004 separates the two highest—Theta Xi remains possessor of the cup, won last semester, with an average of 1.871 and Rho Delta Rho is again second with an average of 1.867. The averages of the other social fraternities are as follows:

Sigma Alpha Mu	1.83
Pi Kappa Phi	1.63
Triangle	1.61
Delta Tau Delta	1.54
Phi Kappa Sigma	1.41
Phi Pi Phi	1.37

Fraternity Average Is 1.53

The fraternities that own or rent their own chapter houses—Phi Kappa Sigma, Delta Tau Delta, Phi Pi Phi, and Pi Kappa Phi—have a scholastic average of 1.53 as compared to the average of all students of 1.62.

In compiling the scholastic averages the following numerical values were given to the letter grades: A is 3 points B-2, C-1, D-0, and E-0. Grades in physical education were not included.

Class of '39 Sponsors Only Summer Affair

Continuing their social affairs on into the summer recess the class of '39 introduced a new factor to their fellow classmates in regards to class activities. On Friday, July 17th, sixty members of the class together with their girl friends, boarded the S. S. Roosevelt at the Michigan Avenue bridge and sailed on a two and a half hour moonlight cruise along the lake front. The party held reservations on the Lido deck and were entertained by the many attractions and scenes about the boat. Music was furnished by the ship's dance orchestra.

The committee, in charge of bid sales and arrangements consisted of B. G. Anderson, E. C. Mitchell, I. Footlik, and R. W. Starmann. Sales were handled by post card correspondence. The turnout was sufficient to balance the expenses.

NEW PROFS—

(*Continued from page* 1)

Dr. J. A. Schaad and Dr. R. H. Manley have both received appointments in the chemistry department. Dr. Schaad received his Ph.D. from the University of Illinois and will be an instructor in general chemistry, while Dr. Manley, having received his high school training at Senn and his Ph.D. from the State University of Iowa, will be an instructor in general chemistry and qualitative analysis. Otto Zmeskal, a graduate of Armour in '36, will be an instructor in metallurgy.

In the fire protection department, Mr. J. T. Sorensen, who received his B.S. in fire protection engineering at Armour Tech in June, 1933, will replace Mr. H. O. Sneidker as instructor of fire insurance. Mr. W. J. McLarney who attended the University of Iowa and received his M.A. from Columbia, will be an instructor in mechanical engineering.

Dr. J. G. Potter, who taught mathematics last year, will also teach physics this year. He was formerly a physicist at the Bureau of Standards. A course in building construction will be given by W. N. Setterberg to junior civils. Mr. Setterberg graduated from Armour Institute in 1929 and is a registered architect in the state of Illinois. He also will be assistant registrar.

Miss R. L. Verwey, the assistant librarian who was on leave of absence last year, has resigned, and Miss E. L. Chesire, who assisted last year, will remain with the library staff.

Student Surveyors Improve Civil Camp

In a program in line with the Institute's, improvements and changes were made at Camp Armour, civil surveying camp. Summer camp is located on the shores of Trout Lake, Vilas County, in northern Wisconsin. Led by Prof. J. C. Penn and S. M. Spears, twenty-nine sophomore and junior civils gained what to many was their first bit of practical experience. When camp opened in the latter part of June, a new arrangement of tents greeted the students as the somewhat helter-skelter order of tents gave way to an almost military horse-shoe formation.

Build Sixty Foot Pier

A pier some sixty feet long, donated by the State House, was assembled soon after camp convened. The pier, though not jig-sawed together according to the numbered pieces, served its purpose well, extending out into the deeper water and serving as an anchorage for the camp boats.

Utilizing some tall, upturned spruce, a forty-five foot flag pole was constructed and set in place before the mess hall. Standing not far from the water's edge on top of a small bluff, the flagpole, the proud bearer of Old Glory and the flag of A.I.T., can be seen from practically any part of the lake. That the spruce was cut, hewn, and trimmed entirely by the students themselves enhances the flagpole in their estimation.

Leave Class Gift

Continuing the principle renewed by last year's class, a novelty in the form of a four and one-half foot fireside bench was made as a memo of the class of '36. Carved in its inlaid Masonite top are the names of the students and professors.

When camp closed at the end of July, the improvements continued. With a nucleus of some eight men, under the direction of Professors Penn and Spears, a wooden shack large enough to house four men was built on the hill top facing the lake. The eventual plan is to replace the tents by the more permanent and durable wooden houses.

Take Many Pictures

Though a far cry from city facilities, sanitary conditions were improved by the erection of a new—no slivers—six-man house.

There is no doubt that this last summer at camp was an unusually productive one. In addition, it was an unusually photographed one, as moving pictures of camp life were made by Mr. Spears.

Assisting the professors in the work of guiding and instructing the students were P. L. G. Moore and H. Manke, who are now senior civils.

GOVERNMENT WILL ASSIST STUDENTS THROUGH N. Y. A.

Set Limit on Hours and Wages

Under the provision of the National Youth Administration for Federal College Student Aid, students will be enabled to work during the coming scholastic year on projects that are beneficial to the school. Students desiring such work may obtain applications from Mr. W. N. Setterberg, placement director.

Ninety-two jobs are obtainable, according to the ruling of the N.Y.A., which allows funds to pay up to twelve percent of the student enrollment of October, 1934, providing those students were carrying three-fourths of the normal curriculum.

No Hazardous Work

The yearly allotment for undergraduates is $12,420 which makes $4,140 available for the first three months period based on $1,380 per month. Graduate students have an allotment of $270 for nine months or $30 a month.

Students will work at school and at the Illinois State Employment Office. The work at school will be of a nature that is not required for the regular operation of the Institute. No work of hazardous nature is to be done and it will be of a practical and useful nature.

Limits Set On Hours

The selection of students for this work is to be based on four conditions prescribed by the N.Y.A. These conditions are: 1. Need of such aid; 2. Character and ability to do college work; 3. Students must be full-time resident students carrying at least three-fourths of the normal curriculum. Students at night school are eligible if they carry at least three-fourths of the full curriculum normally carried by regular day students. 4. Students' age must be between 16 and 25 years.

According to the N.Y.A., students may work a maximum of 30 hours in a given week—8 hours in a given day and shall be paid on an hourly basis at the hourly rate commonly paid by the institution—forty cents, at Armour.

POULTER—

(*Continued from page* 1)

sities and in Canada in 1927 before various scientific gatherings, and quite extensively before general audiences in reference to the Second Byrd Antarctic Expedition. His main achievements are his research work and his organization of the scientific work of the Byrd Antarctic Expedition.

Constructed Equipment

His research work lies in the field of the electrical, chemical, and optical effects of extremely high pressures. To carry on this work he had to design and construct all of the equipment used. He has also done much research in the fields of Antarctic meteor and auroral phenoma, geophysics, glaciology, seismology, terrestrial magnetism, and organic chemistry. He carried out his research work while at the University of Iowa in 1931, while with the Arizona Meteor Expedition in 1932, while having a Guggenheim Fellowship in 1933-34, and while second in command of the Second Bryd Antarctic Expedition 1935-36.

Organized Staff

The scientific research of the Byrd Expedition, which Dr. Poulter organized, covered twenty-two branches of science and employed a staff of twenty men. Not only did Dr. Poulter organize the work of the scientific staff, but he also secured donations to the expedition of more than seventy thousand dollars worth of scientific material and equipment. In Antartica, a land the size of the United States and Mexico, Dr. Poulter and his staff collected samples and specimens that will require three to five years of laboratory and research work for classification. A new species of fish and many new bacteria, and mosses were discovered as well as many mineral and coal deposits. In one mountain range twenty veins of coal each over six feet thick were found.

Chemical Fraternity Holds Yachting Trip

A yachting party was the chief feature of the summer program for Alpha Chi Sigma professional chemical fraternity. The yacht "Jackellen" was chartered for August 30; thirteen members of the fraternity and their friends enjoyed an afternoon of sailing, although no report was given as to who got seasick. Later the group went to the home of Howard Milleville for a radio dance and refreshments.

New quarters have also been given the Armour chapter because of the general rearrangement of Chapin Hall. The furniture and equipment have already been moved to the new suite on 33rd street, while plans are being made to complete remodeling and decoration at an early date.

REMODELING—

(*Continued from page* 1)

room adjacent to Science Hall has been converted into a physics storeroom.

Besides the actual remodeling the physics department benefited by the purchase of new equipment which includes a large demonstration ammeter and voltmeter, a dissectable motor generator, and new gyroscopic equipment. Equipment has also been purchased for experiments in light electronics, and heat.

The freshman drawing room on the fifth floor, Main, nas been cleaned, painted and varnished. Display and show cases have been installed to house student drawings and models.

Clean Library

In the library a thorough cleaning took place. Walls were washed and calcimined, and better accommodations were made for the library books.

As a part of the remodeling and rehabilitating program, the coal lab at 33rd and Dearborn Streets was installed. The first floor rooms were completely remodeled and redecorated and the floors scraped and stained. The rear porch was demolished and will be replaced by a steel stairway.

The men's lavatory in the Mission Building is being completely modernized. The fixtures have been completely removed and are being replaced with modern ones. A modernistic scheme will predominate; including indirect lighting and a suspended celotex ceiling.

Improve Grounds

The school grounds have also been improved. Lawns have been made and trees planted. More landscaping work will be done as the semester progresses.

In all some $12,000 has been spent to improve Armour buildings. Equipment valued at $5,000 was installed in the coal lab and $6,000 worth of equipment in the chem labs.

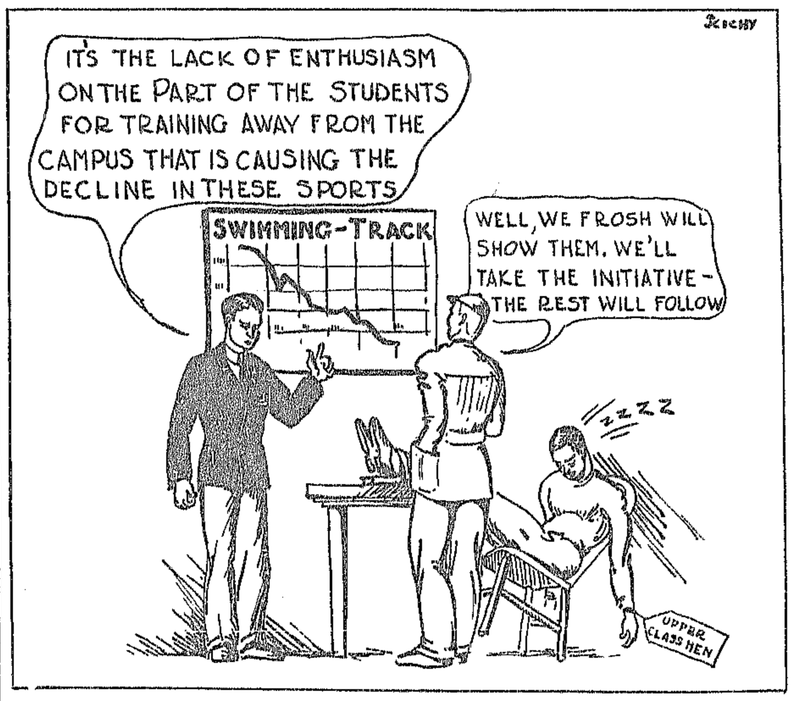
J. Bobhill and P. Cump Win Drawing Awards

Two Armour students, J. A. Bobhill and P. W. Cump, Jr., were awarded first places in the National Drawing Competition sponsored by the drawing section of S.P.E.E. at its annual meeting which took place at the University of Wisconsin last June.

In this competition Armour was the only school which received two firsts. Each college or university submitted only freshman drawings. Cump's work was judged on pencil drawing, orthographic projection, and pencil tracing. Bobhill's drawing was judged on the same points with the addition of dimensioning. The men judging this contest were T. T. Aakhus, University of Nebraska; A. S. Levens, University of Minnesota; and the chairman, G. M. Phelps, Rensselaer Polytechnic Institute.

At the three day session which took place just before the annual meeting of the S.P.E.E. three faculty members, instructors in drawing at Armour, were present: C. E. Hammett, W. H. Seegrist, and C. R. Swineford. Mr. Seegrist presented a short paper on "The Type of Training in Freshman Graphics Important to Progress in Engineering Education". Mr. C. E. Hammett read a paper on "Present Day Needs in the Freshman Course in Descriptive Geometry".

LEAD THE WAY, FRESHMEN!



A SPORTS EDITORIAL

School again! For the incoming freshmen, new acquaintances and new experiences; for the upper classman, the renewal of friendships and the persuance of a well-known routine. Into the minds of both come thoughts of school activities, sports, tournies, and the like.

The call for wrestling candidates sees a large turnout in the gym. It is true that some students show up just out of curiosity and so this group is trimmed down; but a sizeable squad remains to bolster the season's mat hopes. Basketball sees an equally large gathering with many aspirants for cage honors on hand. These sports have a record of success at Armour, and the main reason for this is the wealth of material from which these teams are chosen.

It is only when swimming and indoor track meetings are announced that this Techawk spirit suffers a considerable depression. Turnouts are poor, competitive spirit is at a low ebb, and hence the showing of these teams is not all it might be.

The sadness of this situation cannot be overstressed. It seems hard to believe that the spirited collegian who is willing to "do or die for dear old Armour" in wrestling or basketball is too indolent to travel to the University of Chicago for track or tank practice. With a wonderful athletic plant at our disposal it seems a shame to waste the opportunity to lend one's talents to the school simply because of the additional effort involved in making the trip.

It is unfortunate, of course, that Armour cannot provide these facilities on the campus, but this should not deter those with enough school spirit to surmount the difficulty. This is a challenge! What are you going to do about it?

RESEARCH—

(*Continued from page* 1)

gaseous by-products of little value, with the hope of converting them into gasoline.

Study Stokers in Ice Lab

In the refrigeration laboratory a domestic stoker research project has been studied since last May under the direction of W. A. Pearl. Mr. Pearl and three student associates have experimented with and made many improvements on coal stokers burning from twenty to ninety pounds of coal per hour for use in small homes. At the present time several stokers that contain all the new improvements are being given their final tests.

Coal Research Started

A coal research project has been started under the directorship of Dr. R. D. Snow in new laboratories of the Research Foundation in the building on the southwest corner of 33rd and Dearborn streets. The coal research project is to continue for at least one year and will make an extensive study of Indiana and Illinois coal. These states have the largest reserves of bituminous coal in the United States.

An attempt will be made to improve the combustion properties of the coal by mechanical cleaning. Dedusting and washing processes will be experimented with. A complete investigation will be made of methods to decrease the products of combustion which are mostly ash flue dust and sulphur dioxide. It is hoped that perhaps 25%-30% of the impurities can be removed at the mines by mechanical cleaning.

Following the study of the washability of coal, work will be done on colloidal suspension of pulverized coal in fuel oils. This will utilize the fine coal dust now wasted at the mines and provide a convenient method for transporting pulverized coal.

Investigate Coal for Stokers

Later, the optimum size of coal for use in mechanical stokers will be investigated in an attempt to reduce the large variety of sizes of coal now on the market. Working with Dr. Snow on the coal project will be two graduate students and two undergraduate students.

The stoker research project, coal research, and Universal Oil research projects are forerunners of an extensive program being conducted by the Research Foundation which was formed on April 3, 1936, by the Board of Trustees of Armour Institute.

To Aid Scientific Investigation

Though not the largest research foundation, the Armour Foundation is perhaps the largest engineering research group. The project was organized to "promote, encourage, maintain and aid scientific investigation and research in affiliation with ...the faculty staff, alumni, and students...and to provide or assist in providing the equipment, machinery and means by which their scientific studies, discoveries, inventions, and processes may be developed applied and protected..."

The following are the officers of the Research Foundation: Willard E. Hotchkiss president; Charles W. Hills, Jr., vice president; Robert B. Harper, treasurer; Homer H. Cooper, secretary; James D. Cunningham, Paul H. Davis, and Alfred L. Eustice, members of the board of directors.

THE SUMMER OF 1936 WITH THE ARMOUR ATHLETES

Correspondence Brings Interesting News

MANY HEARD FROM

By Joe Kubert

With the summer just about over, and another semester lurking just beyond the horizon, this correspondent decided to do a little real corresponding to find out just how those mountains of muscle, those exponents of agility, or more plainly, those Tech athletes spent the summer. Accordingly, inquiries of this nature were submitted to various and sundry of the Armour strong men, and the results may serve to glean a little interest for the reader.

Ralph Faust, newly elected track captain writes us that he has been spending most of the hours of the day and night (Saturdays and Sundays included) in the services of a large drug store chain developing, cutting, sorting, and generally manhandling a couple of thousand rolls of film each day. What a training schedule! We hope he bore up under the strain.

Dunbar at Detroit

Also of the tracksters is Claire Dunbar, who spent his vacation learning the makin's of a fire protect at the Michigan Inspection Bureau in Detroit. Claire writes that fifteen Tech alumni are working in the office including John Ahern, '35, former captain of the swimming team. Also actuarially inclined were Jim Sheehan, basketballer, who spent his time in Topeka and Southeastern Kansas, and Bud Parker, of the cindermen, who was attached to the St. Louis bureau.

Jack O'Connell of the cagers was a railroad man this summer. No, he didn't have an executive position but he did wash Pullman cars! A dandy way to keep in training, not to speak of the benefits of an increased reach to the basketball team. Ed Wagner, also a basketeer, just couldn't keep away from the Institute. He spent his time helping Griffin in the chem storeroom.

Seidenberg Has Accident

Irv Seidenberg, baseball man, started off well enough with a nice restaurant job and a catcher's position on the eaterie's ball team in the Illinois state amateur league. He played four games, batted .375 and stole eleven bases. Irv also went out to the Sox park and gave the team the honor of his presence while he worked out with them. Hard luck set in very shortly, however, with him falling down a flight of stairs and fracturing his right hip. He's now fully recovered and is back to bolster Tech sports hopes this fall.

Leo Janas, Tech right fielder, spent his time as a dispenser of fine fuel and oil as well as a purveyor of tires, car washing, and the like at his brother's super-super service station at Diversey and Central Park (advertisement). He also took some courses at Lewis and Armour. Boy, that's ambition!

Jack Shanahan Takes Trip

Jack Shanahan, golf team mainstay, reports that he has been doing some drafting and tool design which, incidentally is right up his alley since he's a mechanical. About August Jack took a breathing spell on an auto trip through the East. Jack Stern, manager of the natators, writes that he has been keeping in training for the hectic sports season by clerking in a grocery and, by his own admission, doing as little as possible. A bad habit, Jack, a bad habit, but we know you'll snap out of it.

Jimmy Dunne, a lad with an enviable reputation as a lightweight wrestler, had an eye out for training when he enrolled on WPA project 2715, putting in sidewalks. This is the same gang that replaced Armour's antique walks. Jimmy boasts of being a union "cement worker". Oh, Mr. Green!

Simeon with Printer

Neal Simeon, Tech high jumper, had an eye out for his future finding employment with a printer's supply company in the production department with a little research in refining methods on the side. Nothing like lugging around a little type metal to limber up the old muscles for Fall.

Ray Braun, also of the track squad, sojourned at the civil camp for six weeks before putting in his time with a large south side construction company. Speaking about construction, the baseball team had a nice representation on the remodeling job of Chapin hall right here at school. Lugullo, Moculeski and Rodkin of the Techawk nine were among the gang that hacked bricks, tore out walls, and generally rebuilt the old landmark so that ye studes wouldn't have to venture out into the cold to go from one entrance to another.

Hackman Named Sports Manager

Frank Hackman has been named to the position of intra-mural sports manager as recently announced by Eugene Heike, A.T.S.A. president. Hackman's application was selected from a group submitted at the close of last semester. He was sophomore president of the class of '37 and has been active in intra-mural sports during the past three years.

The intra-mural manager directs all inter-class, departmental, and fraternity sports competition. The arrangement of schedules, and the provision of rules, equipment, and referees are included in his work. As inaugurated last year, the intra-mural manager will receive a minor manager's award for his services.

· TECH · SHORTS

To settle up some old business first, let's offer some long overdue congrats to Joe Bartusek and Lou Logullo on their election to the co-captaincy of the 1937 baseball team. Carl Forsberg will be the manager of next season's baseball hopefuls.

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First on our sports' list this year come intramural tournaments in golf and tennis. Maybe things will turn out different this year in these two contests. Think what a revelation it would be to complete both of them!

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While still on the subject of golf we offer our felicitations to Jack Shanahan who was elected last June to lead the golf team in '37. Hope the tournament brings out some good material, Jack.

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Speaking of basketball and baseball, we are anxiously awaiting news of the new mentor for these two sports since Coach Krafft has resigned in favor of a business life.

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A new face to be seen around Armour is that of Tom Green, who is entering Armour as a junior with football and baseball experience from both St. Mels and St. Mary's. In football he was a full-back and his baseball tendencies take him to the pitcher's mound.

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Because of the enthusiasm of an adverse nature shown at the freshman-sophomore football game last year by the higher-ups, it looks as if we all will have to be satisfied with the touchball tournament. Football on an untrained basis is at best a risky business.

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Rumor has it that Ralph Faust, captain of this year's track squad, may not be able to return to school this fall. Hope it doesn't materialize; the track team needs him.

Fall Tennis Entries Now Being Accepted

Another year, another fall tennis tournament. During the first week of school entries for this year's tournament will be accepted. Prof. Colvert, tennis coach, will be in charge of all arrangements. The tourney is open to all students including new freshmen.

Recent rains have left the courts in very bad shape but the ground keepers are working hard to get them into condition again. The tourney will continue until the cold weather makes further play impossible. All players remaining in the contest even though it is not entirely completed, will be eligible for next year's tennis team and will be permitted to practice in the armory in the spring. Pairings and rules will be posted on the bulletin board as soon as the list of entries becomes large enough.

Last year's tournament was completed as far as the quarter finals with eight men still in the running. Five of these men, G. Amory, M. Herz, R. Boehme, A. J. Kubik, and G. Palka are expected back this year to give newcomers a run for their money.

Baseball to Start Early in October

Although varsity sport contests at Armour do not start until the early winter season has set in, the student body will get a chance at some first class athletics in a few weeks when the interclass baseball, wrestling and boxing tourneys are started. First on the list and commencing early in October are the hardball baseball games between the classes.

Help Class Spirit

It has always been the custom at Armour to sponsor these interclass games, not only for the chance they give to new men to demonstrate possible varsity ability, but for the good that can come out of them in furthering class spirit and uniting the new freshmen together. Last year the frosh showed up in great style and nearly succeeded in making themselves champs, but were defeated in their contest with the sophs after scoring five runs in the second inning. Kruse, pitching for the newcomers, struck out ten men in the first day's work which ended in a 6-6 tie that was completed the next day in a two inning playoff which brought the final score to 9-6 in favor of the sophomores.

The game between the juniors and seniors was won easily by the seniors on two-hit pitching by their hurling staff. Not wishing to put all the work on their pitchers' shoulders the team also helped along with some mighty handy work at their bats to win 10-3.

Seniors Win Playoff

The playoff game deciding the series was won by the seniors when the tying and winning runs were walked in by the sophomore pitchers.

Rules for the games are liberal; letter and varsity men are allowed to compete on their class teams so long as they play another position than that which they hold on the school team. There are no other restrictions and every one may try out. Practice will begin within the next two weeks.

Golf Tournament Will Start Soon

As soon as possible after school gets under way, plans will be forthcoming for the fall intramural golf tourney. The intentions of those in charge are to get it started at the earliest possible date, so that some conclusion may be reached before cold weather sets in. An announcement of the time and place, which is as yet undecided, will probably be posted on the bulletin board this week.

No Varsity Players

The tournament, an annual affair at Armour, is open to everyone except those who played varsity golf last season. Those who fall in this category are Captain Shanahan, Skuza, and Haase, who, along with Richards and Davidson of the '36 class, made up last year's team. In a way this tourney is two-fold in its aim. First, it will determine a golf champion for the school, and secondly, it will fill the vacancies left in the team by last year's graduation. The two finalists, under certain restrictions, are chosen for the team. While freshmen may take part they are ineligible to play on the team, because of the freshman rule put into effect last year.