

Fall 11-1922

Volume 32 - Issue 2 - November, 1922

Rose Technic Staff

Rose-Hulman Institute of Technology

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Recommended Citation

Staff, Rose Technic, "Volume 32 - Issue 2 - November, 1922" (1922). *Technic*. 402.
<https://scholar.rose-hulman.edu/technic/402>

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THE ROSE TECHNIC

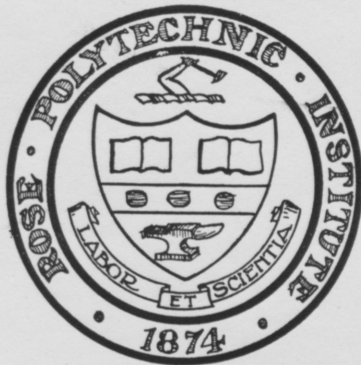
ROSE POLYTECHNIC INSTITUTE

DESIGNED BY

VOL. XXXII.

Member of The Engineering College Magazines, Associated.

No. 2.



COMMERCIAL PRINTING CO.
21 South Fifth St.
TERRE HAUTE, IND.



VOL. XXXII

TERRE HAUTE, INDIANA, NOVEMBER, 1922.

No. 2.

THE TECHNIC

Member of the Engineer College Magazines, Associated.

TERRE HAUTE, INDIANA, NOVEMBER, 1922.

A monthly magazine published by the student body and Alumni of the Rose Polytechnic Institute. Member of Engineering College Magazines, Associated.

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The Transit	Iowa Engineer
Colorado Engineer	Michigan Technic
Illinois Technograph	Wisconsin Engineer
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Terms of Subscription

One Year	\$2.00
Single Copy30

Recognized by the Terre Haute Retail Merchants' Association as an Advertising Medium.

Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized December 13, 1918.

Address all communications to
THE ROSE TECHNIC, Terre Haute, Indiana.

DISTINCTIVE CLASS COSTUMES

For the past ten years or more, if tradition bears critical inspection for once, there has been a custom among the Seniors to wear a distinctive outer garment in laboratory practice time. This has been especially so in Engineering lab. The garment has usually been a prison-stripe overall suit, with skull cap to match.

So far this year, the Seniors have not selected their characteristic garb, but there has been an ever-increasing sentiment among the under classes to adopt some uniform garb.

It has been suggested by the Sophomores that they select white trousers, Rose-colored jerseys, and perhaps white felt hats. The suggestion of such an attire, however, is made particularly with a view to adopting standards among classes for wear to athletic contests.

If every class in school would talk this matter over at a meeting, and if possible decide upon some distinguishing costume to wear to games, it would foster a closer kindredship and keener athletic zest among the students. Simply, it would aid greatly the school spirit.

We would not be borrowing customs from other schools; the very fact that this custom is followed to a great extent in a number of the colleges of the nation is rather more reason we should give it a trial, and decide upon its merits.

Why not each class have a meeting and talk over among its members their opinions on the subject? If favorably reported, it would be well to go right ahead and start the thing going.

Help better and keep bettering that "fighting Rose spirit" by whetting your appetites for sportsmanship and clean rivalry.

THE ROSE HONOR COMMISSION

At the first meeting of the honor commission this year Jesse Tygart was elected president, and Herman Heck secretary of the commission.

Mr. Tygart began his chairmanship immediately by putting up to the members the question of their attitude toward the continuance of the honor commission. He asked each member to state whether or not he thought the body should continue to function, and, if so, how comprehensive its scope should be.

The members present signified their desire that the commission should continue to have some active control over school honor questions, but little or no discussion was held anent the powers or privileges of the commission.

About a week after the election, President Tygart called an assembly of the students and put to them the following questions:

1. Do you want the honor commission to continue as an active student organization?

2. Do you want professors to stay in the room or out of the room during an examination?

3. Do you think that the honor commission should comprehend cases such as, (a) prompting a student in an oral examination; (b) the so-called "borrowing" of text books and note books, and forgetting to return them, and (c) the copying of notebook data by a student who has not done the experiment, and who knows nothing about it?

The opinion voiced by the majority in question No. 1 was in favor of keeping the honor commission. After some discussion, pro and con, question No. 2 was accepted by acclamation. Question No. 3, however, brought out quite a howl of protest. Some said that a declaration of principles by the commission on question three was well and good, but the actual authority of or action by the commission on that score was an infringement on the personal liberties of the students. It was held by some that students will prompt their fellows as long as classes are held in the institute, and that the question of using someone else's notebook to "get by" a course was all right, "if you have to do it." The question was approved by a slight majority.

If the meeting called by Mr. Tygart was not directly fruitful of results in indicating the general attitude of the students, it was at least indirectly provocative of much discussion, and, in that way, beneficial. Much alleged indignation was expressed at the "assumption of authority" exhibited by the president of the honor commission, but upon talking over the subject with more quiet-thinking, steady-thinking men, the objectors agreed that it was quite all right for the official to inquire of the attitude of the student body toward the body over which he presided.

If the honor commission is to function, its essential duty is to act as a more intimate liaison between the student body and the faculty. It should be carried on with the end in view of encouraging personal honor and the assumption of a degree of responsibility by every student. Honor, according to Webster, is "a nice sense of what is right, just and true."

Let's make it a personal proposition, fellows, to be honorable and honest, instead of trying to shift the responsibility onto someone else.

WHY?

Why do you go to college?

Parental power, practical persuasion, or—?

What do you want to be like when you leave college or don't you care so long as you have a certain amount of useful information?

Who decides what shall be taught at your college?

Why do liberal clubs think is necessary to bring to the colleges speakers whose point of view is not ordinarily presented by the faculty?

How is it that you can go to college when so many other men and women can't?

Are you taking somebody else's education away from him?

Do you owe anything to the uneducated?

—National Students' Forum.

Student Council Organized

FIRST MEETING NOVEMBER 1

At the first meeting of the year held at Theta Xi house, November 1, officers for 1922 were elected as follows: Walter K. Boyd, '23, president; Harry J. McDargh, '23, vice-president, and Harold H. Evinger, '26, recording secretary. All members were present but the president of the Athletic Association, who had not yet been elected. The members of the Student Council for 1922 are

W. K. Boyd, president, Senior Class.

L. E. Garrett, president, Junior Class.

O. W. Motz, president, Sophomore Class.

H. H. Evinger, president, Freshman Class.

H. J. McDargh, president, Rose Y. M. C. A.

R. M. Schahfer, representing, Rifle Club.

A. L. Sherwood, editor, The Technic.

The chief topic of discussion was the Junior class situation. After a thorough going-over of the situation, President Boyd appointed the Senior class members of the Council as a committee to confer with Dr. Woodworth to see if the members of the Junior class could be reinstated. A resolution to this effect, with the unanimous backing of the council, was passed.

The matter of rejuvenating student organizations was also discussed, and the matter of the revivification of the Rose Glee Club, and a possible resumption of the practice of giving a Rose minstrel show. President Boyd stated he would take the matters under advisement and report on them at the next regular meeting.

A report was submitted by Financial Secretary Eichin, and upon his recommendation it was enacted that the Y. M. C. A. be loaned \$150 out of the general fund to meet immediate bills.

The matter of securing honor shields was referred to a committee consisting of Eichin and Sherwood, with instructions to get prices in both bronze and gold shields in lots of fifty.

It was decided that the regular meeting date should be on the first Wednesday evening of each month, at 7:30 o'clock, to be held at different Fraternity houses.

A special meeting of the Council was held at noon the following day, Nov. 2, at which a resolution recommending the adoption of an amendment to the Constitution of the Student Council was adopted, the amendment to embody strict disapproval by the student body of future Hallo-we'en and other pranks. A copy of this resolution was given to Dr. Woodworth, with a copy of the proposed amendment, for presentation to the Faculty and the Board of Managers. A copy of both scripts was posted on the bulletin board for the benefit of the student body.

That road they're building south of the National road will make a good stretch of track for the spring huskies to break in on.

RADIO --- A LIBERAL EDUCATION

By E. F. W. Alexanderson,

Chief Engineer, Radio Corporation of America

An eminent specialist on administration told me once that all executives should have engineering training. This has not been possible in the past, but it is becoming possible now, because the scientific education of our engineering school and institutions produces trained minds which have been found to have superior qualifications in all positions.

It is true that engineering is a part of a liberal education, alongside of mathematics and Latin. It is particularly true of electrical engineering, and I venture to say that of all branches of electrical engineering, radio engineering has the greatest educational value. To prove this thesis I should like to point out some of the interesting aspects of radio engineering.

A technical subject, to have an educational value, should have theoretical, practical and human aspects.

From a theoretical point of view, radio engineering has extraordinary possibilities. It presents a set of phenomena of the most varied nature, all of which are capable of exact and logical analysis. Wave motion in space, wave motion in wires, absorption of energy in a semi-conducting ground under an antenna; oscillating circuits, electronic discharge in vacuum under the influence of electric and magnetic fields; the behavior of iron in a high frequency magnetic field, etc., almost ad infinitum.

Radio Man's Field Unlimited

The practical aspects of radio engineering are no less numerous, and so well known that they need not be mentioned specifically. In relation to the experimenter and educator, the practical

aspect of the technique has, however, a greater significance than in any other branch of engineering. Other theoretical experimenters must work under artificial conditions in a laboratory, whereas the radio experimenter is in touch with the ultimate realities. He has the whole world for his laboratory, and therein he may choose at will what assistance he desires for his various experiments. He may mingle with his fellows in the vagaries of short-wave work, and he may reach out over the continent some night with his own transmitter, even spanning the Atlantic when all conditions happen to be in his favor.

He may prefer to gather in the "free speech" that, so appropriately, is available in this country of ours, and, by enlarging the tiny incoming words to giant size, he can fill a huge hall with the whispers of someone hundreds of miles away. He may listen to the ships dotting the ocean, or he may choose the longer wave lengths till the giant voice which talks from land come to him and he hears a dozen countries talking to each other. The inspiring thought comes to him after a time that the majority of them speak his own language.

Over every field of human endeavor stretches the field of the radio transmitter. In an airplane speeds a young radio engineer, testing out some new form of radio compass, or a newly developed transmitter.

On land, he learns the fascinations of the railroad world, as he talks from the Twentieth Century Limited to some distant signal tower. He joins hands with the entertainers of the world as he speeds their joyousness, through the medium of the broadcasting station, to lonely homes afar.

SOOT BLOWERS

Because of the extremely high temperatures to which soot blower elements are subjected, depreciation is heavy and maintenance costs are likely to be high. To obviate this difficulty, various methods have been employed to provide protection for the nozzles. Among these methods are water jacketing, heat treatment of the elements cast iron sheathing, etc., none of which has proved completely successful.

As a further step in perfecting these elements, the Vulcan Soot Clearer Co., Du Bois, Pa., has

recently brought out a special non-ferrous heat resisting nickel alloy, called Vulcan-Hardite, which is resistant to oxidization at high temperatures. When cold this material has an ultimate tensile strength of about 80,000 lb.; at a temperature of 1500 deg. F., where iron and steel are practically useless, it has a tensile strength of about 25,000 lb.

Analysis of the gases arising from the fuel bed of a forced draft chain-grate stoker, in tests being conducted at Pittsburgh, Pa., by the Bureau of Mines, shows that large quantities of combustible gases rise from the central portion of the grate, while near the back much excess air and little combustible gas are present.



TECH BASKET SCHEDULE

Engineers Hold Vaunted Butler Eleven to 19-0 Score

The TECH basketball schedule for '22-'23.

- Dec. 16—Central Normal, at Rose.
- Dec. 20—Merom College, at Rose.
- Jan. 5—Central Normal, at Danville.
- Jan. 9—Indiana State Normal.
- Jan. 13—Muncie Normal, at Muncie.
- Jan. 16—Butler, at Indianapolis.
- Jan. 19—Hanover, at Rose.
- Feb. 2—Merom College, at Merom.
- Feb. 3—Oakland City College, at Oakland City.
- Feb. 6—Franklin, at Franklin.
- Feb. 9—Oakland City College, at Rose.
- Feb. 13—Muncie Normal, at Rose.
- Feb. 19—Butler, at Rose.
- Feb. 23—Hanover, at Hanover.
- Mar. 2—Indiana State Normal.

The basketball schedule includes, to date, fifteen games, eight of which are to played at the home stand. Official call for practice was issued November 13. Coach Millen is said to be in search of material on a "still alarm."

The schedule is not completed, according to the coach, as there are still dates pending on a hoped-for Louisville trip late in the season; and the Normal-Rose dates are merely tentative.

This season should mark a high station in the progress of the Rose quintet. The gymnasium facilities, while not yet completely installed, are already far superior to those at the old school. The gym floor alone is much larger, and of far better quality than ever was had at the old Rose.

Shower baths—enough for a dozen men at a time—will be of better quality, and greater number. The locker room, with lockers that are not easily broken open, is but a hundred feet—by stairway—from the gym.

Material expenditures for this year ought not run high. A large quantity of new material was purchased last year, most of which is in first class condition, and can be used again this season.

Last year's varsity men have nearly all left school. Captain Conover of the 1921-22 team, "Al" Standau, Harry Conover and "Ick" Reinhardt are none of them among us. Choice for captain of this season's court squad is indeed all probability.

Miller, freshman backfield man, had an attack of yellow jaundice. He is reputed to have gotten it from playing with a Chinese team.

Ed Hauer and Pete Watson, numbered among the "minute men of the Butler game," are likely to stick out the season, and chances are good for letters that way.

ROSE 0; EARLHAM 6

The Rose Engineers suffered severe reverses on the gridiron during October and November. Shattered squads and perverse jinxes over-balanced the Millen machine and allowed four consecutive defeats.

Earlham fluked its way to a 6 to 0 defeat over the Techmen, by virtue of Emslie's toe. The Quaker booter sent the ball past the Tech goal on the kickoff, and the Engineers—caught off guard—permitted an Earlham man to fall on the ball and score a touchdown.

The greatest chance for the Techmen to score came when the ball was in their possession on the 15-yard line and was lost on a fumble. At another time, a forward pass was completed and the ball taken over the line, but the score was not allowed on account of a Rose offside. Tech's line held the Earlham backs to few and small gains around end. Whereas Rose succeeded in making eight first downs, the Quakers put over but four.

ROSE 0; DAYTON U. 32

The classiest opponent Tech met on the gridiron this season was the University of Dayton eleven. Dayton outran and virtually outplayed the Tech scrappers, handling us a 32 to 0 defeat. Achiu, the brilliant Chinese member of the Dayton squad, followed his interference well, and his speed at times taxed his forerunners.

The Dayton line, however, did not come up to scratch in comparison with its backfield. Where Rose outplayed the Daytonians on the line, the Catholics outran our tackles and piled up the score.

Dorsey's ability to return punts stood Rose in good stead. He smashed through the line constantly for steady gains. Miller made some 15 and 20-yard gains that were notable. Skeeters' loss in the latter part of the game, owing to injury, was keenly felt.

Moorhead and Hall showed real fight in going after the opposing tackles and did Rose credit. Boyd, who started with a broken nose, succeeded in injuring his shoulder, to boot, during the game, but played on, and well.

St. Mary's College had a delegation at the game and it is suggested that they helped maintain the "morale."

The gymnasium floor has been promised Coach Millen by the first of December. Actual work began November 13.

And the second—or "Tech" team is still with us!

Hot water in the showers at last. Everybody happy? Well,—yes!

ROSE 0; FRANKLIN 62

The dope bucket was literally overturned when Franklin defeated the Engineers, 62 to 0. The Baptists have been laying for Tech since last year, and their vengeance was complete. The demoralization rendered the Engineers in previous "tough" games numbered three men on the hospital list and almost every man considerably "banged-up."

Rohrbaugh, the Franklin quarter, dazzled the onlookers with his smashing game. The hard hitting Franklin backfield was more than a match for the tackle-weak Engineers. Dorsey showed up to advantage in his tackling, while Heck and Mayrose featured the line work of the Engineers.

ROSE 0; BUTLER 19

More badly damaged than in the Franklin contest, the Engineers entered the Butler game with the tide of sport opinion against them, and emerged with the small end of a 19 to 0 defeat by the Pagemen. The battling Engineers had put over one of the hardest fights of the season!

Confronted by reports of Griggs' great work as a kicker, and the dope of Butler defeating Illinois 10 to 0, sport writers had it that Butler would outclass the Engineers like pop-corn in a cannonade. But every man of the Rose squad went into that contest, and FOUGHT, fought with every ounce he had.

Butler's backfield penetrated very little the stiff defense of the Rose line. Moorhead and Tyler are credited with breaking up the Butler off-tackle plays; Hauer and Watson, both new at the end position, developed into veritable jinxes

to Page's end runs, while Skeeters, Campbell and Miller drove hard in Rose offensive plays. Heck and Rall, at guards, presented a formidable combination and broke up line bucks repeatedly.

Griggs never had time to exercise his famous toe, as the Rose ends and center invariably cut short his "booting intermission." A single earned touchdown was Butler's real quota, the other two markers being the result of unearned breaks. Lineup and summary:

Rose (0)	Butler (19)
Hauer	L. E. Paul
Moorhead	L. T. Cecil
Heck (C)	L. G. Morgan
Hager	C. Duttenhaver (C)
Rall	R. G. Hensel
Tyler	R. T. Strole
Watson	R. E. Blessing
Forsythe	Q. Helton
Miller	L. H. Nipper
Dorsey	R. H. Northam
Campbell	F. H. Hungate

Score by periods:

Butler	6	13	0	0—19
Rose	0	0	0	0—0

Referee—Clarke, Indiana; umpire—Coffin, Cornell; linesman—Vandiver, Franklin.

Touchdowns: Butler—H. Hungate, 2; Griggs.

Substitutions: Butler—Griggs for Nipper, Strickland for Paul; Konold for Blessing, Cochran for Nipper, Reichel for Brossman, Woods for Duttenhaver, Feree for Cochran, Leslie for Strickland. Rose—Skeeters for Dorsey, Kelly for Moorhead, Dorsey for Skeeters, Wolf for Hauer, Mayrose for Campbell.

PEP FEST AND PARADE

By G. H.

With the rush of feet and the crash of glass, Lynn Fisher went through the window and fell on his face.

Thus beginneth the Pep Fest, Friday night before the Louisville game, given by the lowly Frosh in honor of their elders. The juice of the apple was imbibed and the doughnut was partaken of.

As soon as everyone was full of these and other things, the parade was formed at Seventh and Chestnut Streets. First was the band which had been hired for the occasion, then a large banner announcing the game on the morrow, and then all the loyal Engineers. Each and every one had a stick of redfire to make light with and a lot of good wind to make noise with.

Led by Rippetoe and Smith, the students gave fifteen great big rah's for Dr. Mees. Then they started marching down Seventh, the band playing "Hail, Hail, the Gang's All Here," and everyone feeling fine. They stopped in front of the Elks Club and gave another good rousing cheer, this time for the Alumni who were having a banquet there.

From thence on, the booted Engineers proceeded through the main part of town; in the Deming lobby, circling about the conor cops;

through the picture shows and everywhere, endeavoring to show the dear public that, even though they did hang out close to Highland Lawn, they were far from being dead ones.

The procession returned to Hemingway Park about nine o'clock and disbanded, all resolved to keep that old time Rose spirit, and get behind the team for all they were worth.

**Chemistry Laboratory
New Equipment**

The desks in the chemistry laboratory can not be installed until the floor is laid, and no definite assurance has been given Dr. White as to when the latter job will be done. Seven thousand dollars for new desks, four thousand for apparatus and about two thousand for labor is the quota to date for the Chemical department. The apparatus includes a Braun electrolytic outfit, gasoline-vaporizing and distributing machine, pressure and suction installations, a montejus for lifting liquids, a Sperry filter press and a new direct-steam-line connected water still. An oil-fired muffle furnace will later be built by the department.

WITH THE ALUMNI

CHICAGO TECH CLUB—OCT. 17th, 1922

The Chicago Tech Club held a meeting at the Chicago Engineers' Club on Tuesday evening, October 17th.

Engineers having stomachs the same as other humans, the matter of food was taken care of first and resulted in everyone being placed in an amiable frame of mind. Condron, '90' at the request of Dr. Woodworth called the roll and considerable laughter was caused by his spelling of names. Present were:

Hammond, '89	Montgomery, '98
Wetherbee, '92	Gilbert, '03
McDargh, '96	Heniken, ex-'07
Shaver, '97	Johnson, '11
Fishback, '02	Overpeck, '13
Ryan, '06	Goldman, '14
Bernhardt, '08	Anderson, '16
Krieger, '12	Orr, '18
Harris, '14	Flesher, '20
Millette, '15	Heubel, '20
Brooks, '16	Kissler, '20
Minnick, '18	Orth, '20
Dowen, '21	Reinking, '20
Miner, '21	Reinman, '20
Steffen, '21	Ruston, '20
Harmas, '22	Harper, '91
Suttie, '22	Hill, '04
Dr. Philip B. Woodworth	Lyon, '14
Condron, '90	Jones, '02
Mory, '94	Wicks, '92
Arn, '97	Wiley, '89

Election of officers for the ensuing year resulted in choice of Arch. G. Shaver, '97 and George G. Anderson, '16, as President and Secretary-Treasurer respectively.

Fred R. Fishback, '02, of Cleveland, who made a special trip in order to be present made a strong plea for support of the Alumni Athletic Fund. He also stated plans are on foot for a big reunion in Terre Haute next June in Celebration of the 40th anniversary of Rose Tech. Very favorable comment was heard as regards the present athletic situation and the proposed celebration next June. We hope to see a big bunch of the fellows present at that time.

Members of the Chicago Tech Club meet for luncheon every Monday noon at the Chicago Engineers' Club, 314 Federal Street and will be very pleased to meet alumni members of the faculty and others there.

Fishback, '02 came from Cleveland to represent Pirtle, '98, Pres. Alumni Association.

Henry C. Gray, '17, has moved to Terre Haute and taken a position with the Pennsylvania System.

S. J. Kidder, '00, visited the school October 26th.

Wm. R. Dedert, '22, is factory Control Chemist with the Victor Chemical Works, Chicago Heights, Ill. Address 1608 Oak St.

F. H. Wente, '12, of Cincinnati visited the school November 7th.

Deming, '14, returned from El Paso, Texas, and joined the Polytechnic men at the Advance Electric Co.

J. A. Wildermuth, '18, and E. J. Flarsheim, '16, visited the school November 2nd.

H. Bowe, ex-'14, is with the Fisk Tire Co., at Bloomington, Ill. Art Nehf estimates that Bowe has gained at least 125 pounds since he left Rose.

Shulhafer late '25 has entered the University of Louisville.

C. R. Voges, '21, is an instructor in chemistry at Texas A. and M. College, Station, Texas.

Self, '20, of East Chicago visited the school November 6th.

Erwin, '19, is in Portland, Oregon; work unknown; living at Y. M. C. A.

Dronberger, '22, is working in the oil fields near Long Beach, Calif. Address 643 Elm Ave., Long Beach.

W. C. Turner, '22, is with the Westinghouse Electric and Mfg. Co. writes that he expects to be transferred soon to Philadelphia. He is in the steam service section.

One graduate, in writing to friends in school, states that the course in Mechanical Engineering should require more electrical study.

SUPER VACUUM TUBE

The largest vacuum tube ever made, has just been developed in the Research Laboratories of the General Electric Company. It is of one million watts capacity (1,000 KW) and is 50 times greater than any tube in use. The tube weighs 60 pounds. It would light 40,000 25-watt lamps or supply energy to almost 1,500 average homes. The filament is a rod of tungsten so large that if drawn out into filament of the size used in the average electric lamp, it would make 50 miles of filament; or it would make filament for 175,000 such lamps. The light given off during the operation would amount to 40,000 candle power.

The creation of this great unit grew out of a desire to produce tubes for general power purposes, as well as radio, and thus open up the possibility of a new field for the vacuum tube. This development has been in charge of Dr. A. W. Hull, noted for his vacuum tube development work.

Station Sightings

The Juniors gave a banquet, October 30, in honor of Mr. Hallowe'en.

The Tech boiler actually began to function November 9, when the traction engine outside the Physics Lab. was removed for good. Feldstein, who was formerly a Boy Scout, thought the tapping in the steam lines was some one signaling for help.

Tommy was surprised to see that there was no mention of his chalk-eating activities in the last issue of TECH. Well, here goes; he's the champion chalk-eater of seven Indiana counties, and the hardest-working professor in the Institute.

Dr. Woodworth has an idea whereby the hardships of the "Nine Absence Rule" may be overcome by attending assembly. That's the fifth reason for attending assembly. The other four are: excellent place to sleep, eat your lunch, study for a quiz or have a conversational debauch with your neighbor.

Maehling and Treadway, renowned French tutors, are reported to be considering a study abroad in French universities as part of the "collegiate inter-relationship drive."

Dr. Carl Leo Mees was a guest at the Sophomore banquet, October 18, held at the Root Tea Room. 'S a wonder "Doc" couldn't come out and visit his boys, "down on the farm."

For the best place in school to sleep, consult Dr. Sousley. Reservations for sleeping quarters in his classes have a gratis ticket added for taking the course over.

The Junior Civils walked through St. Mary's last week.

Sgt. Henry Schultz is sole agent here for ladies' one-piece bathing suits.

"How I Grew to be Six Feet, Three Inches Tall," by Paul McNellis, is the title of the latest addition to the library of the 'Tute.

Do you remember way back when:

Rose Poly was a co-ed school?

Jackie Peddle didn't wear a mustache?

St. Patrick went to Rose?

By Their Deeds.

—Farmer—Have all the cows been milked?"

Dairymaid—"All but the American one."

Farmer—"Which do you call the American?"

Dairymaid—"The one that's gone dry."

—The Passing Show (London).

CLASS ORGANIZATIONS COMPLETED

Class of '23—Boyd, president; St. Clair, vice-president; McDargh, secretary-treasurer; Hager, Heck, athletic representatives.

Class of '24—Garrett, president; Jean, vice-president; Reddie, secretary-treasurer; Campbell, Forsythe, athletic representatives.

Class of '25—Motz, president; Pickel, vice-president; Shaw, secretary-treasurer; Moorhead, Smith, athletic representatives.

Class of '26—Evinger, president; P. Mayrose, vice-president; Wilson, secretary-treasurer; Dorsey, Hall, athletic representatives.

EXCHANGES

Massachusetts Institute of Technology steps out to protect the honor and reputation of American technical institutions by designing and building two motorless gliders to participate in the International Glider Contest at Clermont-Ferrand, France. The planes were designed by the Aeronautical Engineering Society and will be taken to France by three Tech students.

Dr. Samuel Wesley Stratton, founder and for 21 years sole director of the United States Bureau of Standards, has been chosen president of the Massachusetts Institute of Technology. Eastern institutions and newspapers speak extremely highly of Dr. Stratton and his certain success at M. I. T.

A new gymnasium, 122 feet long and 72 feet wide, with a playing floor of 44x90, now graces the campus of Hanover College. The new athletic building will be ready for occupancy at Thanksgiving.

M. S. Weinbaum, formerly a student at the Khar Kow University, Russia, and now a junior at California Tech, is Caltech's strongest hope in the Los Angeles Chess Championship which is now in progress.

Rennsselaer Poly makes "gym hops" a going proposition. They give four a year; after home basketball games.

The College of Industries of Carnegie Tech offers prizes to the amount of \$250 for the best essay written on the subject of "The Use of Vitri-fied Clay Pipe in Plumbing Systems." The money for the award, which is open to both students and professors, is made available by the Eastern Clay Products Association.

Art Wins.

"Oh, I just love art," said the soulful maid, And she heaved a soulful sigh.

"Art who?" asked the flapper. "I don't believe

I have ever met the guy."

—Harlow's Weekly.

Easy.

Teacher—"Name the seasons."

Pupil—"Pepper, salt, vinegar and mustard."

—Hollywood High School News.

Advertisers in this Issue

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PATRONIZE THEM

THE DISADVANTAGE OF POOR LIGHTING.

As thousands of our industrial plants are operating to-day with poor lighting and in some cases with extremely bad facilities, it would seem that the importance of the subject of lighting has not been given the serious consideration by those responsible for such conditions.

Poor lighting is one of the most serious handicaps under which a manufacturing establishment can operate. First of all, poor lighting is the cause of a large number of accidents in industrial plants; and it is singular that accident reports do not yet properly classify the hazards of poor lighting, which in many cases is the primary cause of an accident attributed to what is really a secondary cause. Safety engineers and other officials who make accident reports should always consider the condition of the lighting when working up a report of accident causes, for it plays an important part in a great many casualties and is apt to be overlooked. All accidents due to poor lighting are accidents of neglect, and are preventable. The poor lighting accident hazard is clearly chargeable to management and not men. It is a difficult matter to make such progress with Safety First in a plant which has neglected to provide one of the fundamental requirements of accident prevention—good lighting.

Probably no one single factor connected with the equipment of a plant so directly affects the efficiency and inefficiency as the quality and quantity of the lighting. The curtailment of production of all working under the disadvantage of poor lighting represents a big loss each day; the poorer the lighting the less able is the working force to function efficiently. Quality and quantity both suffer, representing a preventable loss wholly removable by improving the lighting.

Under poor lighting condition, we cannot expect and rarely do we find an orderly, clean factory. Darkened places encourage careless habits and workers are often led to deposit discarded articles or material which should be deposited elsewhere. The eyesight of those who attempt to use their eyes continually in insufficient light, below nature's demands, is often affected. Too much light, such as is furnished by bright, unprotected lights, is as harmful as too little illumination; both are fundamentally wrong. Nature's own illuminant, daylight, is unequalled for our requirements of lighting.

The eye is best suited to daylight in the proper quantity. Sun glare should be avoided, and in the darkened hours proper artificial illumination provided. Daylight should be utilized to the fullest extent. It is supplied free in abundant quantity for our use. Modern invention has supplied a means whereby the interior of buildings can be lighted by daylight, and all the advantages secured which is furnished by good lighting at the smallest cost.

Industrial buildings should have as much wall space as possible devoted to windows fitted with Factrolite Glass, which insures the maximum amount of daylight and which prevents the direct rays of the sun from passing through as it properly diffuses the light.

If you are interested in the distribution of light through Factrolite, we will send you a copy of Laboratory Report—"Factrolited."

MISSISSIPPI WIRE GLASS CO.,

220 Fifth Avenue,

St. Louis.

New York.

Chicago.

Differentials

Ask Errol

Corban: "Why is a cigar stump nearly?"
Phillips: "Because it's all but."

Mineralogy?

Hill-billy: "Say, thar, stranger, let me take you out on my claim and show ye some if its p'int's."

Prof. Childs: "Well, if it's all the same to you, I'd rather see some of its quartz."

At the Dorms

Wolfe: "I just got hold of a tender piece of meat."

Bedard: "Impossible!"

Wolfe: "Yess, I just bit my lip."

Paul: Why do they call those men 'subs'?"

Treadway: "They're used to undermine the opponents."

Esquimo

Jockie: "When two bodies come together with some force, is heat generated?"

Joe Fox: "Not always. I hit a guy once and he knocked me cold."

Well! Well!

(Near the registrar's office)

Pop—That's funny as H——.

Shakey—Be careful of your language!

Pop—I said "well."

Shakey—Like H—— you did!

Tommy was seen wandering near the open air garage when someone asked what he had lost.

"I have a faint recollection of having left my car out here this morning, but I can't remember where I left it."

Concrete

Stutz—Is that a solid hole, Fessor?

Fresh—St. Patrick chased the snakes out of Ireland.

Man—Yeh, but who bottled 'em?

Albright suggests that we call the creek back of the building, the "Squads South Creek," after the enterprising sophomore who gave the freshmen the command, "About face, MARCH!"

ONCE UPON A TIME, there was a Frosh who didn't wear his green cap, but that's all he was; he wasn't any more.

"Oh Calorie, caress me!

Warm my chilly knees.

For Calorie, old dear, you know,
I forgot my B. V. D.'s."

Bledsoe: "I am chilled to the bone."

Hager: "Why don't you put on your hat?"

Waggie (in Thermo): "Tyler, what is a British Thermal Unit?"

Tyler (just come to life): "Why, a B. T. U."

Two boys came across an old darkey belaboring a balky mule with a stake. One of the boys, being tender-hearted, went up and expostulated with him.

"Don't beat him with a club that way," pleaded the boy.

"Wut will I do with 'im?"

"Kick him in the stomach!" said the tender-hearted boy.

"No, suh! No, suh!" said the old chap as he prepared to resume hostilities with his club.

"Why not?" demanded the boy.

"'Caze I'm savin' the kick in de stomach fer de hill yender."

Bing: More throat trouble in the South.

Bang: How's that?

Bing: They just hung another coon.

Examiner (questioning applicant for life saving job)—What would you do if you saw a woman being washed out to sea?

Applicant—I'd throw her a cake of soap.

Ex.—Why a cake of soap?

App.—To wash her back.—Siren.

"You are always going round with a chip on your shoulder."

"That's better than carrying a block around on them, like you do."—Lemon Punch.

She: You would be a good dancer if it wasn't for two things.

Wright: What are they?

She: Your feet.

Integrate It

Scharpie: "I can tell you how much water runs over Niagara Falls to a quart."

Hocker: "How much?"

Scharpie: "Two pints."

First St. Mary's Girl: "Why does a quarter-back wear shoulder pads?"

Second Ditto: "To write his signals on, I suppose."

And, as the grave digger said, "No bier, no work."

GABOON

Senior Thesis Titles

"The theory of heat, or the missing B. T.U."—Robert Tecumseh Hendrich.

"The length of a short circuit"—Red St. Clair and Ralph Bennett.

"The internal energy of a quart of grape juice"—Eugene Brown.

"How I became a bum"—Harold Lentz.

Loud cries of "Help, help!" smote the atmosphere as the piercing scream of a hapless undergraduate reverberated from the walls of the underground cistern. Two hundred students rushed to the scene of combat. All that was to be seen was a green cap floating on the water. The darkness was cloven sharply by the loud report of a two-cent stamp, and out of the abyss rose the head and shoulders of the erstwhile pajama-clad Red Fisher, of the lowly class of '25. "Aw," he bawled, "they made me take a bath, and its not Saturday."

"Cheer up, old man, today's Saturday," a Senior of the Corduroy bespoke himself. And whereupon Fisher did quiet and offer consolation. But I'm a prevaricator if it was Saturday; how could 200 students be at school if it was? Therefore—

Much controversy over the great battle between the Senior Chemists and Electricals is going forth as the nearing battle in the Bowl-of-Bread-and-Milk draws nigh. The greatest fight is expected to occur at center. The contest between Bledsoe of the Electrics and Kinkle of the Chemics will depend on which can run backwards the faster. Johnson, star full back of the Chemics, will oppose St. Clair, the dashing half-wit of the Steinmetzers, while an open battle is on between Dunlap and Leisey, at ends. The Chemics have stipulated that the Electrics do not pad their uniforms with surplus volts and amperes, and the Elects say they won't play if the Chems use gas warfare as a part of their aerial game. Knippy and Childs are coaching.

Grand Opera has been revived at Rose. The Senior Chemists Glee Club—which holds forth on Mondays and Fridays—performed so well in their vocalization of modern and antique pieces that Prof. Alfred T. Childs, "The Kid," has agreed to take charge of the *operatores* and arrange a tour. The trip will not commence till school is out, and the first stop will be St. Marys-of-th-Woods, Ind. The profits from the tour will go toward the establishment of a foundation to investigate the merits of different brands of chewing tobacco—under the direction of Harry Kinkle and Kenneth Cook.

Another outrage has graced the fair campus of the 'Tute! None other than Harry Carter, the western underweight B. V. D. champion, has been hailed into court charged with assute and intent to murder one "Fat" Aitken, last year's winner of the Pretty Baby contest. It is alleged that the brutal Carter assaulted Aitken behind the Athletic field on the night of November 23, inflicting wounds which prevented the latter from taking a very important quiz in Spelling, and causing him to miss a class in Penmanship. Voris, also, is said to have been brutally beaten by the murderous Carter, and is thought to be in a very critical condition as the result.

R. O. T. C. BUILDS FOOTBRIDGE WITH HELP OF '23 CIVILS

It seems that our fair campus offers a number of opportunities for scenic improvement. At least this belief is substantiated by the recent undertaking to build a footbridge across the yet unnamed creek which flows behind the school. Lieut. Arch Colwell of the R. O. T. C. designed a footbridge to be constructed by the military department, under the supervision of the Senior Civils.

A couple of hours each Thursday, military practice day, is devoted to the work on the bridge, and ere this article shall have been "de-composed" by the linotype operator, it is thought that the structure will have been completed.

The bridge will measure over-all forty feet. It is approximately six feet above the level of the water and has been constructed entirely of loose material about the grounds. No fresh stock has been cut from the woods for this purpose.

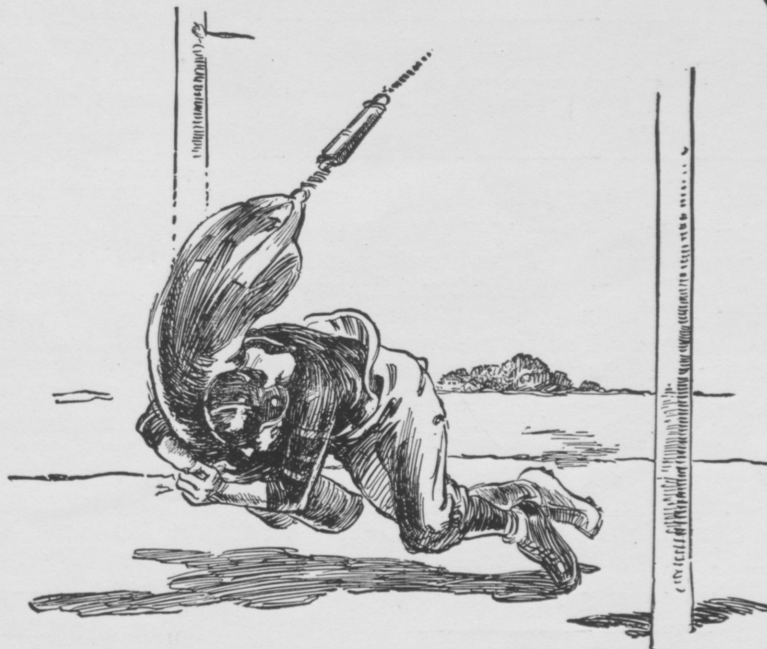
Aside from the actual constructive value to the Rose cadets—as we are informed the students taking military are officially known—of the task of building even a small bridge such as this, will be added the athletic optimists say, the value of the structure as a connecting link "between the mainland and the athletic field."

Though rumor has the athletic field situated at divers spots on the campus, the site referred to above is just now the natural habitation of a cornfield.

Well, let's sell the corn and build a stadium!

HALLOWE'EN DORMITORY PARTY

The inhabitants of the Rose Dorms—in the old Thompson house, down the road—were hosts for a delightful Hallowe'en party, Tuesday, October 31. Dancing, cards, and refreshments were the principal attractions of the evening. The house was decorated in true Hallowe'en style and lanterns indicated the entrances from the road. The patrons and patronesses of the dance were Dr. and Mrs. Woodworth, Prof. and Mrs. Harold Thomas, Prof. and Mrs. John Millen, and Prof. Bedard, who lives at the dormitory and acts as house president. More than thirty-five couples were present.



This is you—at college

SEEKING a symbolic figure to represent Knowledge, let us turn away from the muses of antiquity and the be-capped and be-gowned youth of our own day.

How about the Football Player Tackling a Dummy? Isn't he typical of everything you do in these four years?

You are the Football Player. The dummy is every knotty problem you tackle, every effort to earn your way through, every examination, every campus activity.

Tackle the dummy hard, and you'll be ready for even bigger tests in the game of business or professional life.

Do not say about this symbol, "How clever", and let it go at that. It is worth nothing unless it reminds you to get the spirit of the Tackler into your work.

By his earnestness he seems to feel the thrill of combat. With set jaws and muscles tense he plunges at the dummy. For him it is alive, and the practice is a means to win the game.

If you intend to help score touchdowns after college, here is a man to measure up to.

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Fraternities

EN

At the first fall meeting of En, the following men were elected members from the class of 1923: J. Russell Snyder, Clyde Raeber, Harvey N. Chinn, David V. Eichin.

The present members of En are James Albright, Harold Johnson, Edmond Dunlap, Baptist Buffo, Ralph B. Bennett, Sylvester St. Clair, Jesse L. Tygart, all of the class of 1923.

The annual conventions of the Tau Beta Pi Fraternity, which En is petitioning for a charter, was held October 14, at which time the petition of the local honorary fraternity was to have been considered. No reply, however, has yet been had from the secretary of Tau Beta Pi.

P. I. E. S.

The first social affair of the season in P. I. E. S. was the Second Annual Dinner Dance, at Turkey Run, October 28. The party left Terre Haute shortly after two o'clock Saturday afternoon, motoring to the state park, and arriving there between three and four o'clock.

The time before dinner was spent by the majority in rambling about the beautiful park. A three-course dinner was served at six-thirty in the hotel dining room. Neat place cards, with Turkeys on them, adorned the places. Dancing started at 7:30 and continued until 10:30. The music was furnished by the Swanee Orchestra.

The patrons were Dr. and Mrs. Edwin S. Johonott and Prof. and Mrs. Orion L. Stock. Brother Ernest Scott, '22, was present.

The guests were the Misses Inis Martin, Mary Griffith, Marguerite Berry, Marian Detrick, Mildred Edwards, Ferice McCosh, Mildred McCosh, Audrey Edwards, Fairy DeMoss, Mildred Ellis, Dorothy Ellis, Alice Stewart, Lucille Parks, Mary Balch, Virginia Logan, Mary Elcan, Irene McCormick and Minnie Biewend.

The engagement of Brother George Jean, '24, to Miss Marian Detrick has been announced.

Brother John McCormick, '22, late of Hibbing, Minn., where he has been working at a smelting plant, is home on a short vacation, before going to a position with the Commercial Solvents Corporation.

The new home of the Fraternity, at 2442 Wabash Ave., is being re-decorated by the owner, prior to our moving in, but it is expected the house will be occupied and settled by the latter part of November.

ALPHA TAU OMEGA

A very delightful house dance was given by the chapter on September 22. Bud Cromwell's Novelty Five furnished the music.

Gamma Gamma entertained September 26, with a wiener roast in honor of Brother D. A. Young, who left the following day to take a position in

Chicago with the Sinclair Oil Co. The roast was held on the Institute grounds, and was thoroughly enjoyed by all.

Recent visitors to the chapter house were Brothers Froeb, Manson, Sewell, Self and Ronald.

The chapter announces the pledging of Wayne Motz of the sophomore class.

WHY ENAMELED WARE CRACKS

Enameled iron utensils for household use are supposed to be foolproof. It should be possible to leave them on a hot stove for a while and then to pour cold water in without causing any damage. It has long been known that this was possible with some makes but that others when so treated would crack, and the enamel would chip off.

The Bureau of Standards has recently been conducting tests to find the cause of this cracking, and has found that it occurs because the enamel does not "fit" the iron.

Ten Egyptian students, graduates of the engineering and polytechnic schools of Egypt, sent to America by the Khedive's government to learn American manufacturing methods arrived last week in Washington and have been placed by the Department of Commerce in automobile and other factories where they will be for two years' work as actual employees, with the purpose of carrying back to the land of the pyramids the industrial and technical knowledge and skill of the Yankees.

The Department of Commerce was able to have positions for the Egyptians ready when they arrived, so that they will lose no time in "getting down to brass tacks." The railway and telephone students were placed by the Division of Transportation and Communications of the Department, the marine engineer and the student of Diesel and internal combustions engines by the Division of Industrial Machinery, and the six prospective automobile engineers by the Automotive Division.

The U. S. Department of Agriculture announces the publication of an extensive bulletin on the uses of, choosing of and performance of machinery for excavating drainage ditches. The bulletin, a revision of a former bulletin, is of technical nature, suitable for planning large drainage developments. Copies may be had by writing to the department, at Washington.

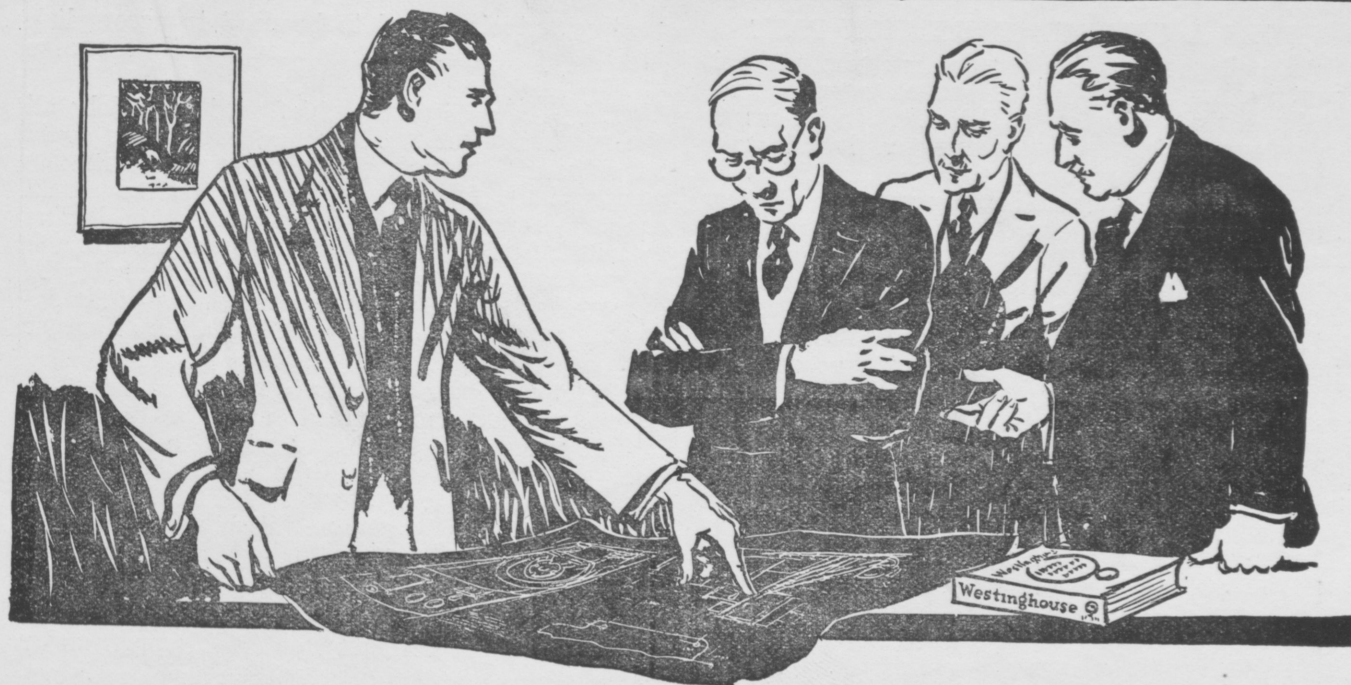
SIGMA NU

Beta Upsilon entertained with a hard time dance October 11. The house was decorated to suit the occasion. Bud Cromwell's orchestra furnished the music.

Brother Steffen, '21, and Beller, '21, were recent guests of the chapter. Brother Beller recently joined the married men's club.

Brothers Braun of Columbia, Price of Purdue, Marsh and Purdue, Shalten of Kansas and Wilkens of Chicago were recent guests of the chapter.

Brother Aubery Devine of Iowa spent the evening of November 13 with the chapter.



Engineering Sells, Too!

A whole lot of the make-believe has been eliminated from selling operations in the past ten years. The old idea that salesmen were born to the sample-case, that they carried some sort of a special diploma from the University of Pooh, has had to break camp, along with the other exploded theory which insisted that a salesman must be a "good fellow", a man of strange habits, tremendous stories, and unquestioned qualities both as a mixer, and as an assimilator.

Now we believe—nay, we *know*—that the best salesman is the man who knows most about his goods, and can talk most *interestingly* about them.

This being the proven case, it isn't so queer that engineering should find a real and effective application in the selling

field, especially if the merchandise marketed is an engineering product that is bought and operated by engineers.

Every engineer who now engages in the sale and distribution of Westinghouse products feels that he is doing work worthy of his training—for he is carrying Service and Sincerity to Industry, and to mankind! He is out where the fighting is often the fiercest, and he is putting up a battle for the things that he believes are right. And a man can't expect, nor ask, a bigger chance than that!

Sixty percent, approximately, of the engineering graduates who come to Westinghouse find their way eventually into some phase of selling. And we are proud to have them there—and they are glad to be there!

Westinghouse

ACHIEVEMENT & OPPORTUNITY



DOES A COLLEGE EDUCATION PAY?

"A college education pays those who make it pay," is not a quotation, but a common-sense statement of a fundamental law. Why do we go to college? Chiefly to prepare ourselves to take advantage of opportunities which await us in the fields of industry and commerce; to be better fitted to meet the stern demands of experienced manufacturers and to do for ourselves what would otherwise be a difficult task—"get along in the world."

This question is being asked, and in some cases answered by our contemporary college publications and industrial organs. Says POWER, in a recent issue:—

"This morning we received a letter from a young man who wants to be a chief engineer in a large central station and would like to know whether or not it would be necessary for him to take a college engineering course to fit himself for the job.

"It cannot be said that engineering degree is necessary to fit one to hold such a position, because such positions are being filled today by men who have not a college education; but it would certainly appear that such training would be a wonderful assistance to anyone aiming for that goal.

"An education should be considered as a means to an end and not in itself, an end. It is true that many view it in this light, but the idea is fundamentally in error. An education should be

used as a tool; a tool to be used to accomplish something in a better way than would otherwise be possible.

"Take the case of the chief engineer's job; all the necessary information and experience could be obtained through years of working in the power plant, but an engineering course would enable a man with the same amount of brains and ambition to arrive at his goal in a much shorter time. Besides this, he would probably be equipped with a broader understanding of fundamental principles which would lead him further yet.

"Practical experience is always necessary with or without a formal education. The difference is that a man who has been trained to think logically is able to interpret his experiences and data to better advantage. He does not need as many experiences of the same nature to tell him what to expect in the future under similar circumstances. By connecting up his observations with his knowledge of the fundamental laws of nature, he is able to predict just what will happen under a given set of conditions; he thus develops a certain amount of foresight, a quality valuable to anyone in any position.

"As a general rule, it may be said that any investment in one's self is likely to bear interest that, from almost any point of view, will be well worth while."

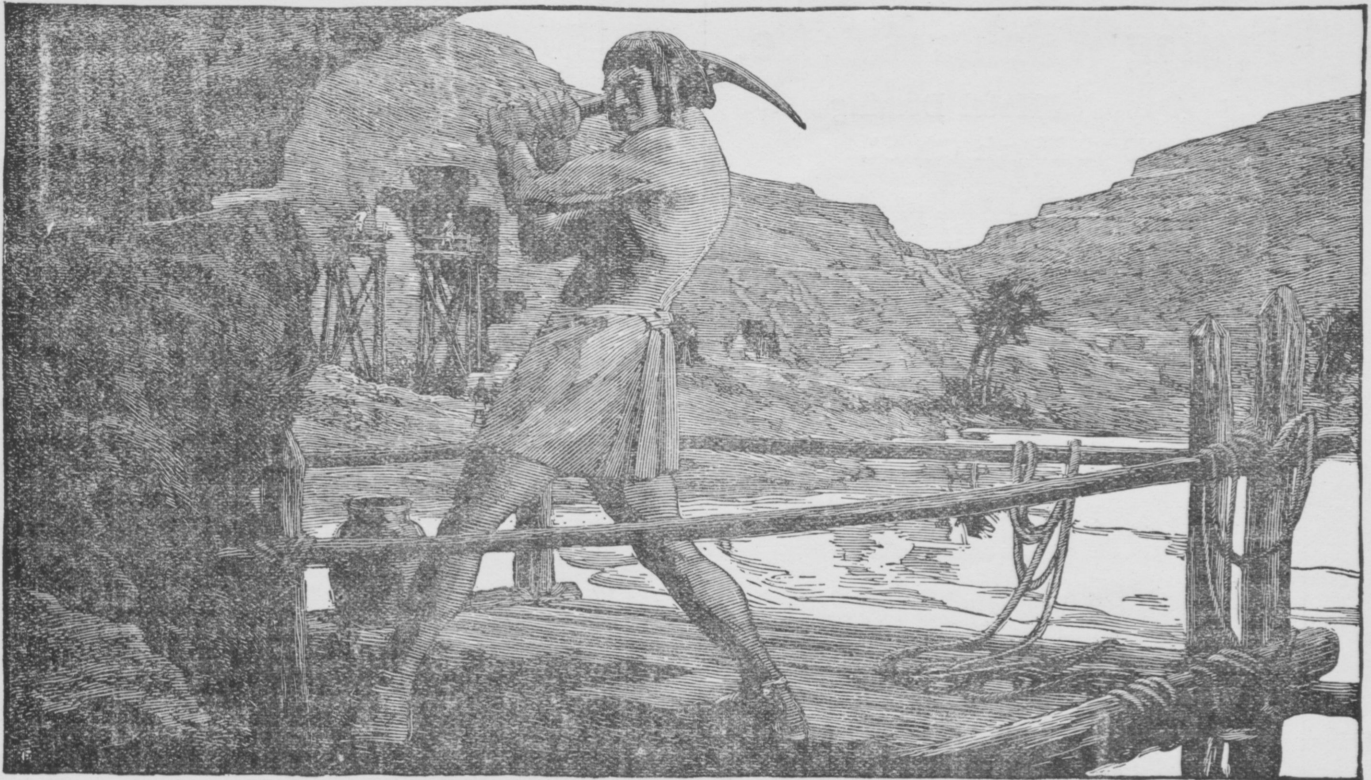
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Founded by Chauncey Rose at Terre Haute, Indiana, 1874

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AND DRAWING, WITH THOROUGH LANGUAGES, PHYSICAL SCIENCES
INSTRUCTIONS IN THE PRINCIPLES AND PRACTICES

Mechanical, Electric, Civil, Architectural and
Chemical Engineering



The Ancient Quarries of Ptolemais

Like a gigantic staircase, the mountain of Gebel-Toukh slopes back from the waters of the Nile. Here, in the 4th century, B.C., Egyptians quarried stone for the streets and buildings of Ptolemais. One can still distinguish the grooves made by the tools of the workmen, and the instructions inscribed on the rock by the foremen.

When it became too costly to remove the overburden, subterranean quarries were started. The workman, on his raised platform, wielding a pointed tool, had no easy task in making the first cut for the roof in his system of "right-stepping".

Production at these quarries was insignificant compared with the enormous daily tonnages made possible by modern machinery and explosives. But conditions today which demand such large production also necessitate the prevention of waste in time,

labor and materials. Now, even dynamite, one of man's greatest labor savers, must be scientifically selected.

On work for which it is suited, Hercules Special No. 1 reduces blasting costs. It contains about 35 percent more cartridges per box than 40 percent dynamite which it frequently replaces, cartridge for cartridge. For several years we have pointed out the economy of Hercules Special No. 1. It contains nothing but the highest grade of standard materials and by wide use at many quarries and mines has proved its dependability.

Our new book, "Eliminating Waste in Blasting", was written to assist you in reducing blasting costs. Write to our Advertising Department, 942 King St., Wilmington, Del., for a free copy.

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INDIANAPOLIS**Bledsoe's Monthly Proverb**Birds of a feather gather no moss, but who
wants to be a tea-kettle.**Something to Chew On**"Have you **The Literary Digest**?"

"No. Nothing but Wrigley's and Beeman's."

—Overheard by the Hudson Observer.

Raise Wanted—Mother—"Johnny, why in the world are you
feeding the baby yeast?"—Johnny—"Boo-hoo! She's swallowed my
quarter and I'm trying to raise the dough."

—Hollywood High School Notes.

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Nothing over \$4.98

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WORLD'S LARGEST SHOE RETAILERS

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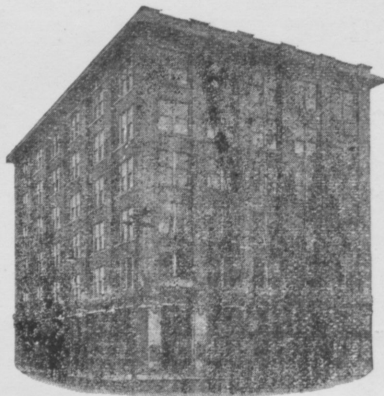
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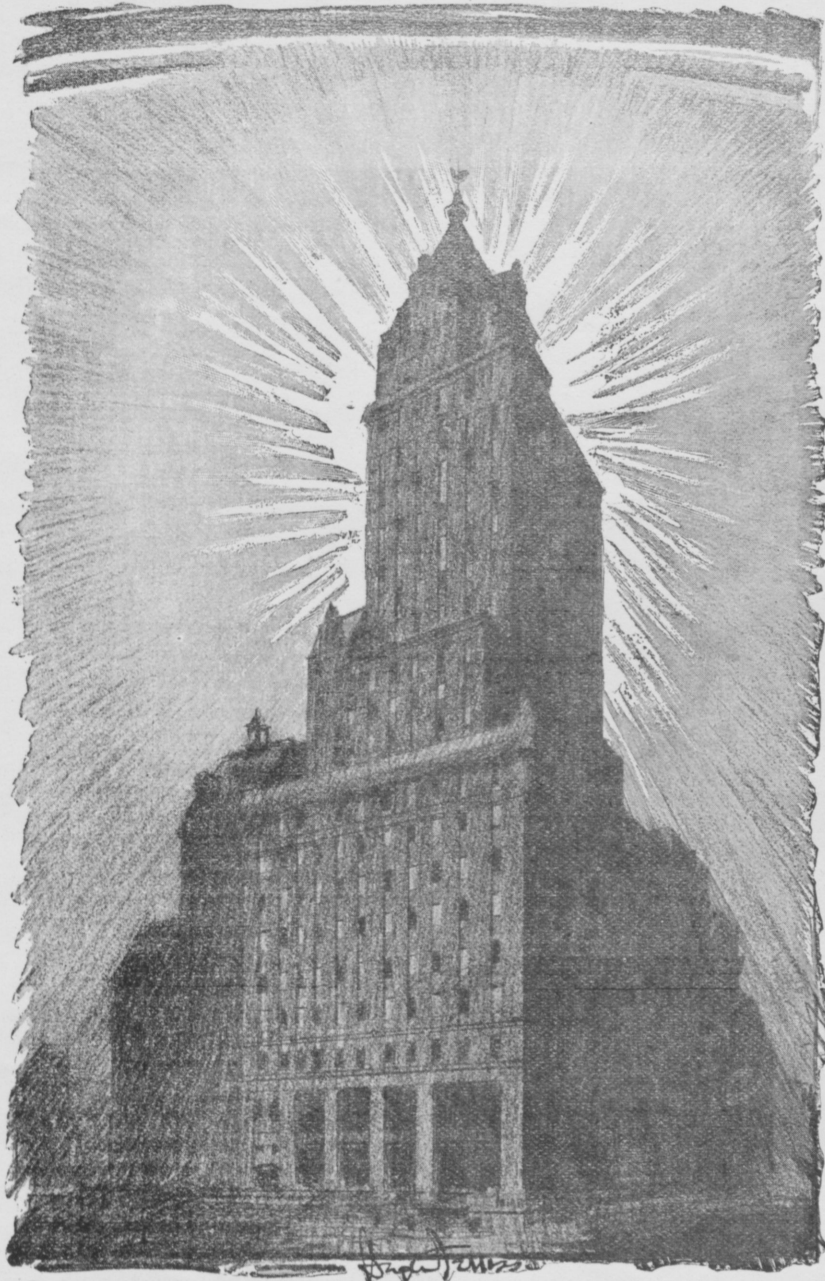
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